



State of California

LITTLE HOOVER COMMISSION

September 5, 2001

The Honorable Gray Davis
Governor of California

The Honorable John Burton
President pro Tempore of the Senate
and members of the Senate

The Honorable Robert M. Hertzberg
Speaker of the Assembly
and members of the Assembly

The Honorable James L. Brulte
Senate Minority Leader

The Honorable Dave Cox
Assembly Minority Leader

Dear Governor and Members of the Legislature:

In the quest to improve public education, extraordinary efforts have been made to ensure that we have the best teachers for our children. Reforms have been crafted to attract, prepare and retain a workforce of skilled and dedicated teachers. Many of these initiatives show promise and some of them are beginning to show results.

In this review, the Commission acknowledges these important efforts. It also identifies ways that California could more fundamentally align the agencies and programs that train, certify and deploy these important contributors to our collective well-being.

More can and should be done to ensure that universities are providing young people with the actual skills necessary to succeed in the most problematic of classrooms. More can be done to streamline the credentialing process and to provide a performance-based path to licensing so veteran teachers from private and out-of-state schools can quickly come to work in California's public schools.

As with many public employees, teachers will never be compensated for the true value they bring to society. Still, a variety of approaches need to be explored to recognize the contributions of individual teachers – to reward performance, to provide a career path and to recognize highly skilled teachers making a difference in highly challenged schools.

There is a growing appreciation that the problem of unqualified teachers is most acute in schools that face a variety of educational and social deficits. For most schools, staffing is always a priority concern. But for some schools and some districts, the inability to maintain a quality instructional workforce is a debilitating problem.

Common sense and a growing body of evidence are convincing: Schools that are poorly managed, poorly maintained and poorly supplied are unattractive places to work – even for individuals dedicated to children burdened by poverty, language barriers, domestic problems and neighborhood woes.

In these cases, the State has an opportunity and an obligation to help communities assess and address the universe of reasons why good teachers leave – whether it is broken air conditioners or bad management.

In sum, to fortify the learning in every classroom, the State needs to align preparation and credentialing efforts to efficiently and effectively ensure that new teachers have the skills and knowledge that are actually needed in the classroom. For schools chronically unable to maintain a competent staff, the State needs to proactively work with local administrators to improve facilities, personnel and other management practices.

Finally, while literally hundreds of millions of additional dollars have been allocated, some of the initiatives were launched without adequate research into the dynamics of the workforce, scrutiny of the existing programs, or assessment of how reforms might make a difference. It can be argued that California faced such a large crisis that it could not wait for studies, or for models to be developed and tested.

As a result, some of these investments will yield payoffs and others will not. But the agencies involved are not adequately or systematically evaluating the new reforms. Moreover, developing a skilled workforce requires a large number and variety of public agencies to work in concert. But there is no conductor – no one formally responsible for even monitoring these efforts, let alone coordinating them.

Among all else, the Commission urges policy-makers to manage these ambitious initiatives as a portfolio of reforms that will need to be refined and improved over time – to scrutinize programs new and old, and refocus resources on the best solutions to the biggest problems.

There is no time to waste.

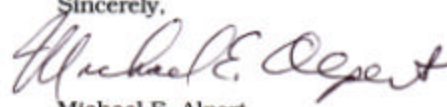
This summer a 31-year veteran of Downey High School in Modesto lost his battle with cancer. The contributions of English and drama teacher James Madison are captured in the story of a single student. This teenage boy was derailed by the death of his father. He began using drugs, fell behind in school, and stirred up trouble with his peers. Mr. Madison's 7th period drama class was the last refuge for such troublemakers.

Mr. Madison took the time to understand the boy. And somehow he helped the student to realize his life was just beginning – and his future his own making. By the end of the semester the boy was the stage manager for the drama productions, and the next semester he was on track to make up the 50 credits he had fallen behind.

"I graduated high school and graduated college," the former student recalled. "I went on to become a successful business owner and supporter of the arts. Without Jim Madison's loving intervention, I would probably be dead or institutionalized."

Those words reveal the importance and the potential of teaching. This experience should inspire our efforts to attract and prepare talented Californians – the 300,000 that will be needed over the next 10 years – to mentor our children.

The Commission submits this report with profound respect for those who teach our children well – and with a firm belief that we share a public duty to support teachers with high quality training, efficient regulation, adequate compensation, quality workplaces and skilled management. We are prepared to help you implement these recommendations.

Sincerely,

Michael E. Alpert
Chairman

Teach Our Children Well

September 2001

Table of Contents

Executive Summary	i
Introduction	1
Background	3
Teacher Preparation	17
Teacher Demand	18
Credentialing Emergency-Permitted Teachers	19
Models for Success	20
Creating New Solutions & Expanding What Works	23
Credentialing	27
Ensuring Quality	27
Credentialing Problems	29
Bureaucratic Maze	30
Aligning Credentialing to Teaching Requirements	31
Some Reforms Underway	31
Improvement Opportunities	33
Compensation	37
Attracting & Retaining Teachers	37
How Schools Compensate Teachers	38
Recent Compensation Initiatives	39
Disproportionate Distribution	39
Reward Desired Outcomes	40
Teaching Environment	45
State Funding for School Facilities	46
Technical Assistance.....	46
Local Initiatives.....	47
Housing and Transportation Issues.....	48
Investing Wisely	49
Administrative Practices	53
First Impressions Count.....	53
Managing Teacher Resources	55
Students Ready to Learn	58
Leadership and Professional Teaching Environments.....	58

Workforce Management	63
Without Knowledge or Evaluation	64
Uncoordinated Data Collection	64
Minimal Evaluation	65
Ensuring Teacher Workforce Goals Are Met	67
Conclusion.....	73
Appendices.....	75
Appendix A: Little Hoover Commission Public Hearing Witnesses	77
Appendix B: Teacher Workforce Advisory Committee.....	79
Appendix C: Information Resources	81
Notes	85

Table of Sidebars

Quality for All	iii
Teachers Workforce Initiatives Fragmented.....	xvii
Milestones in Teacher Workforce Policy.....	4
CSU Teacher Initiatives	10
Milwaukee Teacher Education Center.....	21
California Teacher Academy - Training Our Own.....	23
Commission on Teacher Credentialing	27
Teacher Credentialing Requirements in California.....	28
Average Beginning Salary in Western States 1999-2000.....	37
Regional Teacher Labor Market Differences	38
Milken Family Foundation Teacher Advancement Program.....	41
School Facility Funding Programs.....	46
San Jose Teacher Housing Effort.....	49
On the Role of Administrators	53
Predictors of Administrative Trouble.....	55
FCMAT Certificated Personnel Assistance and Review Project.....	56
Strong Relationships Make Strong Schools	57
Sharing School Data Electronically.....	65

Table of Charts & Graphs

Many Agencies, One Goal	xx
Who Prepares Credentialed Teachers?	9
Teacher Demand	18
Students in the Poorest Communities are Educated in Schools with the Fewest Fully Credentialed Teachers	40
Normal Teacher Recruitment Workload	54
Evaluation Requirements.....	66
Many Agencies, One Goal	70

Executive Summary

The greatest asset any school has to educate children are able teachers.

The greatest challenge that California faces in bolstering the performance of its schools is developing a workforce of high-caliber teachers.

Traditionally, the State has focused on increasing the supply of able teachers by helping underwrite teacher preparation costs and by using credentialing to regulate quality. More recently, the State has expanded efforts to help schools support and nurture teachers after they enter the classroom.

Policy-makers have demonstrated their concern by greatly expanding investments in preparation programs and providing financial incentives to attract talented people to teach. Equally important, the State has recognized that teaching skills must be continually refined to keep pace with rapidly changing educational needs of California students.

But problems remain:

- The number of unprepared teachers is growing – and most of those teachers are assigned to schools with students with the greatest academic challenges. Teaching talent is so anemic in one out of every 10 schools districts that experts say the education process in these schools is at risk of collapse.
- Teacher preparation programs are not meeting the needs of schools – as evidenced by the extraordinary efforts to provide additional in-the-classroom training and the experience of California's premier educators who prefer to teach teachers themselves.
- The credentialing process fails to screen out unqualified individuals and its complexity adds barriers for capable teachers trying to become certified to teach. Because credentialing is not based on actual ability to teach, the State cannot easily use the process to align teacher preparation with the educational needs of students.
- After the State heavily invests in recruiting and training new teachers, schools do not provide the teaching environment that enables these teachers to be successful.
- Finally, the State's efforts to improve student achievement by improving the teacher workforce are frustrated by the fragmented

way these initiatives are managed. The State lacks a mechanism for guiding teacher initiatives to produce desired educational outcomes.

The Commission began this examination knowing that education is a high priority with policy-makers and that significant efforts have been made to address long-standing problems. The response in many ways has been commendable. The State has attacked many of the issues with energy and resources that many public programs envy.

But lacking adequate research-based information, many of these initiatives were necessarily based on experience and collective wisdom, especially from the public entities long responsible for educating the educators. Sometimes policy cannot wait for research, but bold initiatives without sound management rooted in a knowledge-based understanding of how well programs are working and how they can be improved. While the State has generously financed efforts to attract and prepare new teachers, it is not monitoring, managing or evaluating these programs in ways that will allow policy-makers or the public to know if hundreds of millions of dollars are being well spent.

The State has financed some tremendous successes: Charter schools have developed effective mentoring programs and pioneered performance-based compensation. District-based academies have built strong relationships between local administrators, new teachers and the classrooms where they must succeed. And on-the-job supports allow new teachers to build confidence and hone skills before they become disillusioned and give up on a career in the classroom.

Attention now needs to be given to learning from those experiences. That information can be used to build a series of initiatives into a sustained reform effort that efficiently produces, enables and rewards some of the most important of public employees – teachers.

Specifically, preparation programs need to be better aligned with the skills and the needs of schools, particularly those facing the greatest academic challenges and having the greatest difficulty attracting quality teachers.

The process for credentialing new teachers needs to be sharpened – stripped of requirements and rules that do not effectively gauge quality, and strengthened with new predictors of success. Licensing requirements based on inputs – such as the completion of classes or subject-matter tests – are only surrogates for what we really want to measure, competence in the classroom.

The State could significantly improve the ability of local school districts if it were to scrutinize its own efforts to prepare and credential teachers. Enormous resources are invested in these institutions and they need to become more responsive to the consumers of their services – the individuals who want to teach and the schools that need them to teach.

From there, the State needs to target resources where the shortage of qualified teachers is persistent and severe. These schools come to the State for regulatory relief – permission to hire unlicensed teachers under emergency permits. As a condition of those permits, the State should make sure those schools and districts are doing what they can to attract qualified instructors, to improve school-site management, to provide adequate teaching resources, and to ensure a safe and healthy learning environment.

And finally, the State needs to manage the teacher workforce as the asset that it is. Many people are trained to be teachers, but never teach. Many who plan a career in teaching give up on the classroom. Many who stay do not reach their full potential because they are not effectively mentored, managed, empowered or rewarded. The State could expand on the leadership it has expended on education by formalizing its management of this important investment.

Over the next decade California schools will hire about 300,000 teachers. That number captures the size of the challenge, but only hints at the possibilities.

A high-caliber teacher workforce gives California a critical advantage attracting investment and jobs in a global economy where skilled workers and innovative entrepreneurs are highly valued. The ability to quickly retool teachers with leading edge knowledge is vital to California's economic health.

Quality for All

Low-performing schools have been disproportionately impacted by a shortage of capable teachers. In the hardest hit schools, more than 50 percent of the teachers are employed under emergency permits or waivers. These schools tend to be in low-income communities where teachers often face the greatest educational challenges.

While many of the Commission's recommendations would improve the teacher workforce in all schools, some of the reforms would specifically strengthen the workforce at low-performing schools. Among them:

- ❑ **Challenged School Credentials**, as described in Recommendation 2, would recognize – and allow teachers to be compensated for – the extra skills needed to be successful in low-performing schools and the value they bring when they teach there.
- ❑ **Teaching Environment Reviews**, as described in Recommendation 4, should be conducted in low-performing schools requesting a significant number of emergency credentials to ensure that school facilities meet minimum requirements.
- ❑ **Administrative Practice Reviews**, as described in Recommendation 5, should be conducted in low-performing schools requesting a significant number of emergency credentials to ensure personnel and site management practices are not hindering teaching and learning.

These recommendations should become part of a comprehensive state strategy for addressing the needs of low-performing schools.

The Commission appreciates the time and resources that policy-makers have made in improving education in California. The Commission applauds both the Governor and the Legislature for the richness and depth of their commitment to this issue. The recommendations and findings presented here are intended to amplify and enhance efforts to craft effective teacher initiatives to address the challenges California schools face.

Teacher Preparation

Finding 1: State training strategies do not prepare enough credentialed teachers who are committed to being career teachers, particularly in needy schools.

Teacher preparation programs in California “recommended” more than 19,000 graduates for credentialing in 1999. Combined with experienced teachers moving into the State, California added more than 24,000 credentialed teachers, roughly the number needed to fill vacancies.¹ Some experts believe California has enough fully trained teachers to meet its needs.² But many schools still struggle to recruit able teachers into their classrooms, and as a result, hire thousands of teachers on “emergency permits.”

Where are all the credentialed teachers going? One explanation is that many newly credentialed teachers were previously working under emergency credentials. More than 15,000 of the individuals credentialed in 1999 had been working under emergency or some other alternative certification. This suggests many teachers work in less attractive schools under emergency permits, obtain the preparation needed for a credential – frequently with the school's assistance – and then move on to more attractive schools. Unfortunately, this constant transfer of prepared teachers from needy to less needy schools makes the least attractive schools dependent on unprepared teachers. Part of the solution is to focus efforts on preparing more teachers committed to careers in needy schools.

Wisconsin has done just that. Milwaukee public schools, working with state agencies and the private sector, used aptitude tests and innovative preparation strategies pioneered at the University of Wisconsin to train high-quality teachers committed to working in the city's most challenging schools.³ Applicants are screened for the characteristics needed to succeed in challenging schools. The best training programs are moved from universities to neighborhood schools. These teachers learn by doing and seeing first-hand how high-quality pedagogical skills promote student success. Most importantly, once fully trained and credentialed, these teachers tend to stay in these schools.

Similarly, Center X, a teacher program at UCLA, is recruiting and preparing individuals willing to become career teachers in challenging inner-city schools. As in Milwaukee, Center X reports that graduates are making a long-term commitment to needy schools.

But many teacher preparation programs do not measure up to the standard set by the Milwaukee and Center X programs. Schools complain that many preparation programs do not produce new teachers with the aptitude or skills to succeed in challenging classrooms.

Massachusetts tackled this problem by requiring, beginning in 1998, that graduates pass a communication, literacy and subject matter knowledge test before receiving a certificate. The first time the test was administered, more than half the prospective teachers failed – many of them graduates of prestigious preparation programs.⁴ The passage rate for the Massachusetts Educator Certification Test has steadily increased.⁵ But many observers believe the Massachusetts experience shows that teacher preparation programs are out of sync with the education needs of schools.

Massachusetts also has established the Massachusetts Institute for New Teachers (MINT). The institute gives Massachusetts the ability to carefully and quickly target resources at particular gaps in its teacher workforce. MINT is an alternative pathway into teaching for about 500 people a year who are recruited nationwide. In addition to tuition-free education, the program offers \$20,000 signing bonuses to highly talented, newly MINTed teachers that take jobs in some of the most needy schools in Massachusetts.

To develop committed and quality teachers, some schools in California are selecting and training their own. Principals in three separate high-performing schools in Southern California testified that they prefer to prepare their own teachers, to ensure they have the skills to be successful. In these schools, teaching ability is more important than diplomas or credentials. These schools assess how well teachers lead their classrooms and administrators help teachers improve their abilities. They also screen teachers for a commitment to teach needy students. These schools use teacher and student performance assessments to target training resources and reward teachers for improving student performance.

Similarly, the Elk Grove Unified School District has established its own teacher preparation program to satisfy its expanding need for teachers. Participants complete a rigorous preparation program designed to equip them for a state credential and succeed in the classroom. By running its

own program the district ensures the training is aligned with its education goals.⁶ The district hires about 80 percent of the graduates.

Recommendation 1: The State should target teacher-training resources to create a pool of capable teachers committed to teaching careers in California's schools, and particularly schools with the greatest educational challenges. The Governor and Legislature should enact legislation to implement the following initiatives:

- ❑ **Career Teachers.** The State should target teacher training investments at programs that screen teacher candidates for the aptitude and commitment to teach in hard-to-staff schools and give preference to candidates most likely to succeed in those schools:
 - ✓ School districts should be given resources to provide scholarships so they can determine which candidates and programs meet their needs.
 - ✓ Teachers working on emergency permits or waivers should be provided state-funded teacher credential preparation. These teachers should be screened for an aptitude and commitment to teaching as a precondition to working under emergency permits.
 - ✓ The State should expand funding for partnerships between schools and teacher preparation programs that ensure preparation, credentialing and professional development are aligned with the workforce needs of schools.
 - ✓ Loans, grants and forgiveness programs should give priority to teachers committed to working in hard-to-staff schools. For example, newly credentialed teachers who successfully perform in a hard-to-staff school for five years should have all preparation and credentialing costs paid by the State.
- ❑ **CSU and UC Programs.** The State should enact legislation to improve the quality of the teacher preparation programs at the California State University and the University of California.
 - ✓ The State should link CSU and UC teacher preparation funding to how well they prepare teachers for needy schools and how long teachers teach in those schools. Preference should be given to teacher trainees that schools want to employ.
 - ✓ The State should require the CSU and UC to place student teachers in hard-to-staff or low-performing schools, which is where they will be needed and should be encouraged to teach.
- ❑ **State Teacher Academy.** The State should explore establishing a premier teacher academy to recruit, prepare and deploy the highest caliber teachers in needy schools. The academy should be used to pilot the most advanced techniques in pedagogical training and as a

means for the State to directly increase the supply of highly qualified teachers available to the most needy schools.

Credentialing

Finding 2: The State's credentialing process is an obstacle to employing more fully credentialed teachers.

California's credentialing process is a complex labyrinth that tests persistence and endurance as much as the ability to teach. The handbook used by the California Commission on Teacher Credentialing (CTC) spans over 1,000 pages, detailing the multiplicity of requirements and routes to obtaining credentials.

Rather than efficiently weeding out the inept and certifying capable teachers, the requirements attest that a teacher has received a basic level of preparation. The process has a number of weaknesses:

- Credential requirements have not been verified to ensure they measure teaching competency.
- Teachers trained in California cannot satisfy credential requirements by demonstrating competency in the classroom. Teachers coming into California can use prior classroom experience to meet some, but not all requirements. They then must complete added training that adds little or no value to their abilities.
- Schools regularly circumvent requirements to employ credentialed teachers by using emergency permits. But permits have time limits, and when time runs out teachers stop teaching. Their replacements, however, often have fewer teaching skills, abilities and experience.
- Credential candidates trained in California must be recommended for a credential by an approved teacher preparation program. However, many colleges and universities do not accept coursework completed at other state-accredited programs. Trainees often have to retake training to be admitted, to graduate or be recommended for a credential.
- The burden of meeting requirements is not equal among all categories of credential candidates. For example, teachers who complete preparation programs prior to receiving their baccalaureate degree may be required to complete up to a year of additional postgraduate work to earn a full clear credential. In contrast, teachers completing a preparation program after earning a baccalaureate degree can use that training to meet the postgraduate work requirement.

- Credential applicants are required to complete added training to accommodate requirements imposed after they enter training.
- The credential process does not reward veteran teachers for acquiring and applying unique skills and abilities that help students facing the most difficult educational challenges to succeed.

Recognizing these deficiencies, the CTC sought legislation in 1998 to overhaul the process. Under SB 2042, CTC is developing a teacher preparation and credentialing process intended to align K-12 education goals, teaching standards and credentialing requirements. CTC has drafted proposed standards for subject matter, teacher preparation and teacher induction. CTC also is incorporating an assessment to verify teaching ability as a precondition for credentialing. The new process will not be fully implemented until 2004. Until the new processes are fully developed it will be hard to assess how well they remedy problems inherent in the present system. But, these efforts demonstrate that CTC recognizes shortcomings in its present process and is willing to make concerted efforts to correct problems.

Either as part of the implementation of SB 2042 or other on-going efforts to improve teacher credentialing, there are many other improvements that deserve to be explored by policy-makers.

Other states, for instance, have not only streamlined the process for certifying teachers from other states, but are actively recruiting educators from other states.

The State has not used its authority over preparation to eliminate the duplicate training that is often required of students who transfer from one accredited program to another.

And perhaps most importantly, the State has not minimized the consequences that the credentialing process has on hard-to-staff schools. California has tried to balance the immediate need for teachers and the need to ensure teacher quality by limiting the time teachers can work under emergency permits and waivers. But the mechanism needs improvement.

Some critics assert that so many unprepared teachers are working under these exemptions that hundreds of thousands of children are not receiving quality education. Other analysts point out that many schools with high concentrations of teachers working under emergency permits are performing better – as measured by API – than other schools with more fully credentialed teachers.

This suggests that the State should not try to force all emergency permit teachers out of their classrooms with time limits. A better approach would be to bolster and refine efforts to help talented teachers become fully trained and credentialed.

The State also needs to discourage the use of credentials as a passport to a job in more attractive schools. Moreover, the State has missed an opportunity to use the credential process to recognize the special skills and abilities needed to teach in the most challenging schools. The State can help these schools hold on to experienced teachers by formally recognizing individuals with these additional skills. Creating a special credential would focus attention on the contribution these teachers make. And, like the reward for national board certification, the State could provide financial awards to teachers with the certified skills and the commitment to making a difference in low-performing schools.

The barriers of the credentialing process might be justified, if the process ensured only capable teachers entered the workforce. But even full credentialing only assures that teachers have met minimum preparation requirements. The State established the Beginning Teacher Support and Assessment program (BTSA) because about half of all new teachers did not survive the first seven years of teaching. This suggests that the credentialing process allows far too many new teachers into the workforce before they are fully prepared to face the challenge of teaching.

The State needs an efficient credentialing process that screens out inept individuals while enabling competent teachers to work in classrooms. The current process fails to accomplish both objectives.

Recommendation 2: The State should rigorously scrutinize the credentialing process to eliminate unnecessary hurdles, allow for performance-based credentialing and align requirements with the needs of schools. The Governor and Legislature should enact legislation to implement the following initiatives:

- ❑ **Verified Standards.** The State should verify the value of credentialing requirements using school performance data. Credentialing requirements should be assessed on their usefulness to ensure teachers are capable. Credential requirements that are not verified measures of teaching ability should be eliminated.
- ❑ **Out-of-State Recruitment.** The State should expand efforts to recruit capable teachers from outside of California. In addition to nationwide outreach and monetary incentives, the State should create a fast-track that credentials out-of-state teachers based on their teaching ability, not equivalency assessments. For credentialing

purposes, experience in private schools should be counted in the same ways as experience in out-of-state public schools.

- ❑ **Performance Credential.** The State should allow teachers to prove during a probationary period that they possess the knowledge and skills for a credential based on their teaching performance. For example, a school specific credential might be granted if a school principal and two other credentialed teachers assessed a candidate's performance, teaching skills and subject matter knowledge and recommended the teacher.
- ❑ **Challenged School Credential.** The credential process should recognize that schools serving low-income, high-need communities frequently require teachers with extraordinary abilities and skills beyond those required for a full teaching credential. A special credential for these teachers should be established and resources should be targeted at expanding the number of teachers with these skills and abilities. The State also should provide these teachers with financial rewards for raising academic achievement in low-performing schools.
- ❑ **Time Limit.** Time limits on emergency permits should not penalize under-credentialed teachers who add to a school's academic achievement. The State should establish a waiver allowing these teachers to continue teaching under the school's sponsorship, provided they are helping the school achieve academic performance goals.
- ❑ **Training Credit.** For credentialing purposes, the credentialing commission should recognize and give credit for teacher preparation completed at any approved teacher training program. Likewise, CTC should ensure that training programs do not require duplicating successfully completed work at another accredited program as a condition of admission, graduation or recommendation for a credential.
- ❑ **Requirement Changes.** Teachers should not be denied credentials because of new credential requirements that were added during their preparation. The State should treat these teachers in the same way that already credentialed teachers are treated when new credential requirements are imposed.

Compensation

Finding 3: Teacher compensation does not reward performance, provide a career ladder for the best teachers, or compensate instructors in hard-to-staff schools for the benefits they bring to those communities.

The mantra is simple: Teachers are attracted to schools that value good teachers. A principle way to demonstrate that value is with appropriate pay and benefits.

But before the State can help schools craft compensation strategies, it needs to know how much and how compensation should be raised. Labor market studies can provide data for deciding how much. Pilot projects to develop innovative compensation strategies can provide answers about how to best target compensation increases. But, to have the most effect, compensation needs to be part of a complete package of changes to make teaching, particularly in hard-to-staff schools, more attractive.

The State has raised the base salary level for credentialed teachers to \$34,000 per year, but districts are not obligated to offer emergency-permit teachers this rate. Some experts argue this creates an incentive for districts to hire teachers with emergency permits to save salary costs. To the extent this is true, the State has the opportunity and the obligation to make sure that its regulations encourage districts to make educationally sound decisions.

Other states, however, have gone much further to explore how compensation can be used to promote desired outcomes. For example, the Milken Family Foundation is partnering with schools in Arizona to pilot a program that rewards continual teacher improvement and eliminates salary caps that drive veteran teachers out of classrooms.

Within California, some charter schools are using compensation to reward performance. At the Vaughn Next Century Learning Center, a charter school in Los Angeles, teacher promotion and compensation is based on performance assessments that incorporate student academic achievement data.

Compensation also could be used to resolve the problems created in schools with high concentrations of teachers who are not fully credentialed. Assigning veteran teachers to low-performing schools is unlikely to work, but the State can help districts to develop policies that encourage capable teachers to teach in low-performing schools. The State also can assist districts by helping to pay for incentives that could

attract capable teachers to the most needy schools. Rather than "combat" pay, which rewards teachers regardless of their contribution to student achievement, the State should explore ways to encourage high-performing educators to teach in low-performing schools.

As previously described, the State should explore a special credential for master teachers with the commitment and abilities to help students in low-performing schools. Financial rewards tied to the credential should only be paid when these teachers are working in a low-performing school.

Recommendation 3: The State should provide fiscal incentives to school districts to structure compensation to recognize high performance, to provide a career ladder for the best teachers and to compensate high-quality instructors for the value they bring to academically challenged schools. The Governor and Legislature should implement the following initiatives:

- ❑ ***Competitive Compensation.*** The State should conduct labor market studies to determine what level of increased compensation is needed to attract fully prepared teachers to schools. Any fiscal incentive that encourages districts to employ under-qualified teachers solely to avoid costs should be eliminated.
- ❑ ***Reward Performance.*** The State needs to encourage and help fund innovative teacher compensation strategies that reward teacher performance and eliminate salary caps that encourage veteran teachers to leave the classroom. The State should pilot alternative compensation structures such as those proposed by the Milken Family Foundation's Teacher Advancement Program and provide incentives for districts to embrace effective classification, promotion and merit-based pay systems that promote state education objectives.
- ❑ ***Challenging Schools Reward.*** As outlined in recommendation 2, special financial rewards should be targeted at teachers who successfully help schools raise student performance in the most challenging schools. Teachers who acquire and apply special skills and abilities to improve performance should be eligible for challenged school credentials and receive financial rewards for raising student achievement in these schools.

Teaching Environment

Finding 4: Unattractive work environments discourage capable educators from teaching, particularly in hard-to-staff schools.

Dilapidated facilities and unsafe working conditions encourage capable teachers to leave undesirable schools. In other areas, the lack of

affordable housing near schools and long commutes make schools unattractive to teachers.

Schools that draw high-quality teachers often are successful because they provide healthy, safe and stimulating teaching environments. In these schools, teachers are provided the equipment and technology needed to provide a 21st Century education to their students. Teachers are provided supplies and materials, without having to dip into their own pockets or wade through cumbersome procurement rules. If housing and transportation are problems, schools work with government and civic organizations to make affordable housing, parking or public transportation more available and convenient to teachers.

To attract and keep the kind of teachers who increase student achievement, low-performing schools need to provide quality work environments. But classrooms in these schools are often old and dingy, and in need of substantial repairs. According to the Office of Public School Construction, the deferred maintenance needs for California schools are estimated to be \$3.2 billion over the next five years.⁷ But low-performing schools often serve low-income communities without the resources or the capacity to improve facilities.

Some schools are finding innovative ways to address this challenge. In some communities, schools are partnering with civic and business organizations to improve school conditions and find quality housing close to schools and affordable to their teachers. The State can do more to help improve facilities, encourage safer schools and mitigate housing and transportation issues. The State already has taken steps to provide some funding and technical assistance to help schools find solutions to these problems, and should do more.

The schools that have not yet addressed this challenge should be encouraged to do so as quickly as possible. One way to make sure hard-to-staff schools are making every effort to provide quality work environments is for the State to require these schools to show progress before allowing them to hire emergency permit teachers. Certainly, the State should help schools eliminate conditions that make schools unattractive to capable teachers. But, schools also need to show they are working hard to be more attractive to capable teachers.

The State role should be to help schools get the resources and technical assistance they need to make hard-to-staff schools attractive to able teachers. Schools should be held accountable for contributing the resources they have and especially for demonstrating leadership and community commitment to improving these schools.

Teachers testified adamantly that schools that create good teaching environments will attract and retain the best teachers. Schools that do a poor job will see qualified teachers migrate to schools offering fewer negatives and more rewards.

Recommendation 4: The State should target additional resources at hard-to-staff schools to make them more attractive workplaces for credentialed teachers. The Governor and Legislature should implement the following initiatives:

- ❑ ***Teaching Environment Reviews.*** Schools that apply for emergency permits should be required to meet the following requirements:
 - ✓ Schools that do not meet API improvement goals and have a significant percentage of teachers on emergency permits or waivers should be assessed on factors critical to attracting and retaining high-quality teachers by a team of experts. These schools should be required to meet operational and facility standards established by the State.
 - ✓ Based on the assessment, schools with deficiencies should be required to correct factors that make them unattractive work environments.
 - ✓ In allocating facility funds, extra consideration should be given to low-performing schools that have developed plans for modernizing and maintaining schools that meet state operating standards.
- ❑ ***Affordable Housing & Transportation Planning.*** The State Superintendent for Public Instruction, working with districts, should prepare a plan for the most cost effective way that the State could provide the following types of assistance:
 - ✓ Help teachers overcome transportation barriers to employment in these schools.
 - ✓ Help teachers obtain affordable quality housing within reasonable commute distances.

Administrative Practices

Finding 5: Poor school administrative practices create a non-professional teaching environment that discourages capable teachers from working in many schools.

In addition to compensation and working environment, the quality of site management, the Commission was told, impacts the ability of schools to attract and retain able teachers.

Schools make teaching more attractive to the best teachers by valuing teacher participation in school governance, allowing a high degree of teacher control over classroom approach, encouraging teacher collaboration and peer support, providing adequate paid time for relevant professional development, and maintaining positive labor-management relations. The more time teachers spend struggling with school bureaucracy, filling out meaningless paperwork, and being social workers, health care providers and playground supervisors, the less time they have to be teachers.

Also, schools with healthy, rested and ready-to-learn students are more rewarding to teach in and these schools find it easier to maintain a strong teacher workforce. The State can help schools by ensuring that adequate health, mental health, child welfare and other social services are available to the schools to ensure that these burdens are not diverting teachers from their primary task of educating students.

There also is strong evidence that schools with high-quality administrators are better able to attract and retain quality teachers. In these schools, capable administrators free teachers from unnecessary paperwork and administrative red-tape. They show that they value high-quality teachers by focusing teacher time on teaching. They also show they value teachers by implementing effective recruitment and personnel management practices to find and keep the best teachers.

In poorly administered schools, teachers are neither supported nor encouraged. In some schools, veteran teachers must dig into their own pockets to pay for continuing education and credentialing costs. One way the State could encourage more veteran teachers to teach in hard-to-staff schools would be to subsidize or waive these costs.

Recommendation 5: The State should provide funding to improve school administration and to promote a professional teaching environment. The Governor and Legislature should implement the following initiatives:

- ❑ ***Hiring Practices.*** Schools that apply for emergency permits should be required to adopt a streamlined hiring process that ensures easy access by qualified teachers to school employment.
- ❑ ***School Performance Audit.*** A team of the best administrators should audit the administrative processes of low-performing schools employing teachers on emergency permits. Weaknesses in management practices or barriers defined in labor agreements should be identified and schools required to correct deficiencies within a designated time. These assessments should ensure schools:

- ✓ Have high-quality human resource management practices.
 - ✓ Adopt effective teacher workforce improvement strategies.
 - ✓ Treat teachers as professionals and respect their participation in school governance.
 - ✓ Provide open high-quality labor-management environments.
- **Improve School Operations.** More funding should be provided to help hard-to-staff schools improve academic performance. Among the opportunities:
- ✓ Expanding funding for collaborative teaching that links universities with the classroom.
 - ✓ Eliminating or waiving continuing education and credentialing costs for capable teachers committed to teaching in hard-to-staff schools.
 - ✓ Ensuring teachers have adequate and easy access to all necessary teaching supplies and equipment.
 - ✓ Increasing rewards for teachers making extra efforts to participate in school tutorial and study hall programs before and after school.
 - ✓ Funding professional development activities for principals and school administrative staff that raises their administrative skills.
 - ✓ Expanding non-teaching staffing to free teachers from non-instruction-related activities.
 - ✓ Increasing non-teacher resources targeted at delivering recreational, health, and other social services necessary to strengthen the role of schools as community centers and ensuring that students are healthy and ready to learn each day. Whenever child care services are provided through school facilities, schools should be encouraged to provide space for the children of teachers.

Workforce Management

Finding 6: Teacher workforce initiatives are fragmented and misaligned. The State has not put in place adequate mechanisms to evaluate its teacher workforce investments. The teacher workforce represents a tremendous public asset that should be carefully managed to benefit all students.

The State has assigned teacher workforce initiatives to a variety of state agencies, but it has not established a means to assure these initiatives are aligned to produce the right educational outcomes. For example,

public universities are given millions to train teachers, yet teachers are not trained or are not willing to work in the schools needing teachers. And the accreditation process does not ensure that preparation programs are providing the needed skills. While the State is beginning a long overdue alignment of teacher preparation, credential and school instruction requirements, it still needs to align all workforce initiatives to achieve the desired goal.

Without coordinated management, teacher initiatives often work at cross-purposes or miss important opportunities to improve outcomes. The State needs unifying executive leadership to identify teacher needs early and align programs to do the most good.

Another obstacle to good management is a lack of accurate labor market information. Policy-makers must frequently craft policy and make billion-dollar decisions without reliable and meaningful information.

The State already gathers much of the data, but it is collected by different agencies and is not compiled in ways to help identify trends, assess policies, and make improvements. SRI International recommended the State adopt a common data identifier that would allow comprehensive workforce reports to be published.

Without accurate information, it is hard to craft effective policies. For example, poor workforce information resulted in the State first trying to fix the teacher shortage by increasing supply alone. CTC told the Commission that later the State realized it needed to also adjust the distribution of teachers to achieve state education goals.

The State also lacks a rigorous evaluation mechanism to assess the effectiveness of workforce initiatives. The agencies that administer these initiatives do not have the mechanisms or resources to evaluate

Teachers Workforce Initiatives Fragmented

- **Preparation.** The University of California, California State University and California Community College systems all have major roles in teacher preparation and continuing education.
- **Student Aid.** The Student Aid Commission distributes millions of dollars in student loans and grants that pay teacher preparation costs at public and private institutions of higher education.
- **Governor's Initiatives.** The Secretary for Education advises the Governor on teacher needs and oversees special programs intended to improve K-12 outcomes.
- **Program Administration.** The State Superintendent of Public Instruction administers the Department of Education under the policy leadership of the State Board of Education. The superintendent is responsible for ensuring that schools comply with state educational requirements.
- **Housing Loans.** The State Treasurer's office administers a housing assistance program targeted at helping teachers in low-performing schools purchase homes.
- **Retirement.** The State Teachers Retirement System administers retirement fund collections and disbursements for districts and teachers contributing to the system. The system maintains an extensive database of information concerning teachers in the retirement system.
- **Credentialing.** The Commission on Teacher Credentialing accredits teacher preparation programs, administers the credentialing process and oversees alternative preparation programs.

programs. In many cases, enacting statutes do not require evaluations or funding is not earmarked to pay for assessments.

The governance of California's educational system is notoriously fragmented, as well. K-12 school districts are governed by elected boards and managed by superintendents. At the state level, policy is formed by the Governor, the Legislature and the appointed state board of education. The Department of Education administers state programs under the direction of the independently elected Superintendent of Public Instruction. A Secretary of Education was created in the 1990s to give the Governor a point person on the issue that has increasingly preoccupied state leaders.

The organizational landscape is even more cluttered on workforce issues, because of the central role of the Commission on Teacher Credentialing and the close support role of the California State University System, the University of California and the community colleges.

For the workforce initiatives to be successful, there needs to be a central venue for gathering and analyzing information on the workforce and the effectiveness of policies, coordinating efforts involving multiple agencies, and identifying barriers to success that need to be resolved by the Governor and the Legislature.

Just as there is no individual or agency charged with coordinating these initiatives, there is no agency that as presently constituted could successfully assume that role.

The two obvious candidates would be the superintendent and secretary. The Superintendent's job is a combination of setting public agendas and administering public programs. The Secretary represents the Governor in the Legislature and other venues.

As the State has taken on a larger role funding K-12 schools, there has been increasing competition between the Governor and the Superintendent, a trend that transcends the current office holders. In the workforce arena, the leadership responsibilities go beyond the K-12 system to include public and private universities and partnerships involving neighborhood schools and businesses – in other words, a statewide effort that reaches far beyond the classroom.

Given this reach, the Secretary for Education – if properly equipped with the staff, budget and backing of the Governor – could take on the role of aligning workforce initiatives. Specifically, the Secretary could monitor the workforce and the various programs, coordinate the efforts of the agencies involved, and recommend policy and funding changes needed to

make the best use of public resources to improve the quality of teaching and learning.

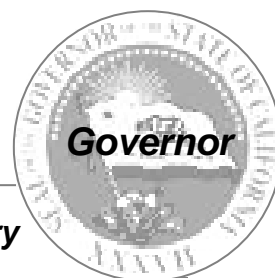
The State needs to recognize the teacher workforce as the multi-billion-dollar asset that it is and give the Secretary for Education responsibility for ensuring effective management of this asset.

The graphic on the following page shows the Governor's relationship with the various agencies that affect California's teacher workforce.

Many Agencies, One Goal

Numerous agencies are involved in the preparation, certification and deployment of California's teacher workforce.

To bring cohesion to these efforts, the Governor could rely on the Secretary for Education to provide daily leadership.



Office of the Secretary for Education

The Secretary for Education, appointed by the Governor, is responsible for advising the Governor on teacher workforce issues.

Teacher Preparation

Board of Governors of the California Community Colleges

Governance: 16 members, all appointed by the Governor.

- ❑ Sets systemwide policy.
- ❑ Provides guidance for the 107 colleges, which are increasingly playing a direct role in preparing teachers.

California State University Trustees

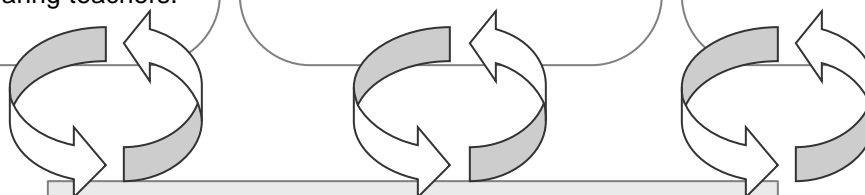
Governance: 25 members, 19 appointed by the Governor.

- ❑ Prepares about 15,000 new teachers yearly.
- ❑ Provides continuing education opportunities for existing teachers.

University of California Regents

Governance: 26 members, 18 appointed by the Governor.

- ❑ Prepares about 900 new teachers yearly.
- ❑ Provides continuing education opportunities for existing teachers.



Commission on Teacher Credentialing

Governance: 19 members, 14 appointed by the Governor.

- ❑ Accredits teacher preparation programs.
- ❑ Certifies teachers recommended by preparation programs.
- ❑ Administers school-based internship programs.

Teacher Certification

Teacher Deployment

Board of Education

Governance: 11 member board appointed by the Governor.

- ❑ Establishes statewide educational policy for K-12 schools.

Superintendent of Public Instruction

The State Superintendent is an elected official who serves as the director of the Department of Education and executes the policies adopted by the Board of Education.

Department of Education

- ❑ Assists educators, school districts, county offices of education, and parents to develop students' potential.

Recommendation 6: The Secretary for Education should be given the resources and the responsibility to align state teacher workforce initiatives with the needs of schools and ensure the workforce is managed as a valuable public asset. Specifically, the secretary should be directed to:

- ❑ ***Coordinate State Efforts.*** The Secretary for Education should be given the responsibility and the political capital to ensure that educational agencies are aligning their efforts to improve California's teacher workforce.
- ❑ ***Gather Accurate Data.*** The secretary should use a unique teacher identifier to efficiently collect and merge data collected by teacher preparation programs, state agencies and schools. The secretary should make teacher workforce information available to educators, policy-makers and the public.
- ❑ ***Assess Initiatives.*** The secretary should develop clear metrics to measure the number of teachers being trained, where they are employed, and how long they stay in the workforce. The secretary should evaluate workforce initiatives and recommend improvements to the Governor, the Legislature and other policy-makers.

Introduction

California's public and private leaders strongly agree that the state's future rests on the ability to provide a quality education to its children. A capable teacher is the most important asset that a school has to help a student learn.

Policy-makers know this well and have invested millions of dollars to increase the supply of teachers, to better prepare them for the challenges they face and to compensate them in ways that encourage them to make a career in the classroom.

Still, in discussing the biggest challenges facing the state, corporate, civic and academic leaders told the Commission that the quality of schools and the quality of teachers are issues that need additional scrutiny and continuous improvement.

From the outset of this study, the Commission understood that significant initiatives have been launched to fortify the workforce of teachers. The Commission's goal was to assess those efforts and provide policy-makers with an independent and bipartisan critique of those initiatives.

The process for preparing and supplying teachers to California schools is often compared to a pipeline – from university-based training programs to the classrooms throughout the state. The Commission's analysis follows that pipeline as defined by its major segments:

- **Preparation.** The State relies on a large number of private and public colleges and universities – and increasingly on the schools themselves – to prepare incoming teachers. The Commission wanted to understand how people are trained to be teachers. Who applies and who is recruited? What are they taught and what do they learn? How well are they prepared for their assignment in the classroom?
- **Credentialing.** The credentialing process is intended to ensure that all teachers, no matter how they are prepared, meet minimum requirements to be successful teachers. The Commission wanted to know if credentialing effectively screens out the unprepared. The Commission also wanted to know how efficiently the process worked, because a cumbersome process could unnecessarily constrain the supply of competent teachers.

- **Teacher Deployment.** The third component in the pipeline is the deployment of teachers to California's schools. The Commission wanted to understand how the shortage of fully prepared teachers manifests itself in the more than 8,000 schools throughout the state. How do state policies influence the distribution of teachers, and how do individual teachers decide where they want to teach, and even whether they want to continue teaching?

As the Commission reviewed the pipeline – and in particular, efforts to widen and strengthen it – the Commission identified a need for greater systemwide monitoring, assessment and management of the teacher workforce. As individuals, parents and grandparents we recognize the enormous value of good teachers. Increasingly the State is recognizing the teacher workforce as an enormous asset. But how well is the State managing that asset?

Study Process

The Commission held three public hearings in the state Capitol, receiving testimony from teachers and school administrators, college and university officials, labor leaders and top educational administrators. The witnesses at those hearings are presented in Appendix A.

The Commission established an advisory committee of education experts and interested parties that met five times to explore teacher preparation, credentialing and working conditions that impact the teacher workforce. The membership of the committee is presented in Appendix B.

The Commission examined recent initiatives, interviewed dozens of educational experts, researchers and policy-makers, and reviewed workforce data, reports and other studies.

The Commission's conclusions are presented in this report, which begins with a transmittal letter and executive summary. This introduction is followed by a background chapter, six findings, and a conclusion.

Background

California schools have not ranked well in comparisons with other states. The National Assessment of Education Progress data shows California's 4th and 8th graders consistently performing below the national average.⁸ The National Center for Public Policy and Higher Education gives California a C-minus in its 2000 ranking of K-12 efforts to prepare students for college.⁹ Only eleven other states ranked lower. Other assessments rank California poorly – 46th in high school completion rates, 38th in fourth-grade reading scores and 35th in fourth-grade math proficiency.¹⁰ Education experts argue that the dismal performance is linked to the State's growing inability to get able teachers into the neediest classrooms.

Studies in Texas, Alabama and New York concluded that employing high-quality teachers is the single most important factor in determining a school's ability to influence student achievement.¹¹ But in California, the proportion of public school teachers without full teaching credentials is about twice what it was a few years ago. More importantly, the low-performing schools have the highest concentrations of under-credentialed teachers. For example, elementary schools scoring in the bottom 10 percent on the Academic Performance Index (API) have on average more than six times the proportion of under-credentialed teachers as elementary schools in the top 10 percent.¹²

According to the National Assessment of Educational Progress, California's fourth- and eighth- graders consistently perform below the national average in math, reading, science and writing. Fewer than one in four students demonstrate proficiency in these subjects.

NAEP 1990-98 State Profile

Most schools report that the increased use of emergency permits and waivers is not by choice, but out of desperation. They cannot find enough fully prepared teachers to fill vacant positions. Some educational experts also believe that when the proportion of teachers in a school on emergency permits and waivers exceeds 20 percent, teaching skills become so anemic that the instructional needs of students can be seriously compromised.¹³ One out of 10 school districts in California now has more than 20 percent of its teachers employed under an emergency permit or waiver.¹⁴

Evolution of Teacher Workforce

For the last hundred years, a vigorous debate has raged about how best to supply capable teachers to schools. Until the late 1800s, local school boards and administrators were largely responsible for setting teacher preparation standards, licensing teachers and defining the role of teachers in schools. But in the early 1900s, educators and academicians advocated for increased college training and for state licensing of teachers. Similarly, following World War II teacher unions emerged as powerful advocates for giving teachers greater control over the entry requirements into their profession and collective bargaining began to influence how schools operate and the role of teachers. Increasingly, parents, civic organizations and business interests have articulated their concerns about the quality of public education.

To assess the effectiveness of present teacher workforce policies, it is important to understand their origins and how they have evolved as part of the larger debate concerning public education in California. The forces that shaped the teaching profession over the last hundred years are still strong today and continue to influence the teacher workforce.

Milestones in Teacher Workforce Policy

- ✓ In 1905, California became the first state in the nation to adopt a fifth-year college requirement for a secondary school credential.
- ✓ In 1930, the State adopted a four-year college degree requirement for an elementary teaching credential.
- ✓ By 1954, teachers were required to complete approved preparation and be recommended for a credential if they trained in California.
- ✓ In the 1960s, the fifth-year requirement was extended to elementary teacher credentials.
- ✓ The Ryan Act of 1970 moved credentialing from the Department of Education to the new Commission on Teacher Credentialing.

Source: *Professionalism and the Public Good*, David Angus, & CTC annual report 2000.

The Roots of Teacher Training

A century ago most teachers were prepared in "normal schools." These schools were modeled after teacher preparation schools in Europe, such as the *École Normale Supérieure*. Normal schools were specialized high schools that prepared teachers for work in elementary and secondary schools.

Normal schools were so successful that by the early 1900s there were 127 public-supported normal schools and an even larger number of private normal schools operating nationwide. Normal schools operated much like trade schools, awarding a teaching certificate upon graduation. As the demand for highly trained teachers increased, many normal schools evolved into two-year colleges. As more states required teachers to have four-year degrees, normal schools either closed or were absorbed into four-year colleges or universities.

In the first half of the 1900s, the college requirements for secondary school teachers were increased as the curriculum grew to include more science, math, history and literature. By the mid-1900s, a four-year degree and preferably a fifth-year of pedagogical training was required for elementary teachers, as well. Education theorists had successfully argued that colleges and universities were the best equipped to train teachers and understood what teachers needed to know.

Similarly, the needs of schools also changed as campuses and districts grew, requiring more administrators to manage the increasing bureaucracy. Colleges and universities began offering advanced degrees in educational administration.

Regulating the Teacher Workforce

As educational standards increased, so did the role of state government in teacher licensing. The U.S. Office of Education notes that in 1898 only three states had sole authority for teacher licensing. By 1937 the number of states with sole authority for licensing had increased to 41, and only one state still delegated licensing to local schools.¹⁵

Credentialing provides states a tool to regulate both the quality and quantity of teachers. When the supply of teachers is greater than the needs of schools, credential requirements can be increased to eliminate the least trained candidates from the applicant pool. Conversely, when the pool of prepared candidates is less than the demand for new teachers, credential requirements can be relaxed to allow schools to temporarily hire less trained teachers using emergency permits or waivers. Because emergency permits and waivers have time limits, these teachers eventually meet credentialing standards or leave the profession. Historians report that in times of general labor shortages, such as during World War II, the number of emergency-permit teachers increases. In turn, when unemployment rates are high, the proportion of uncredentialed teachers usually drops.¹⁶

Credentialing has been used historically to stabilize the workforce in a number of ways:

- ✓ Education requirements for teachers can be incrementally ratcheted up to avoid causing sudden salary increases that would burden school budgets.
- ✓ Teachers are protected from an over supply of candidates driving down salaries. Credential advocates argue this helps create a stable workforce of experienced teachers with the skills to provide quality educational outcomes.

- ✓ States can use credential requirements to align teacher preparation to their curriculum. This ensures teachers have the knowledge to teach what all K-12 students need to learn.

Approved Teacher Preparation

Academicians argue that linking college-level teacher preparation to credential requirements improves the quality of the workforce and ultimately student performance. But colleges and universities with teacher preparation programs have another reason to support state licensing. State licensing allows preparation programs to become state "approved." Graduates of "approved" programs are deemed to meet the requirements for credentials. This is often referred to as the "approved program approach" to teacher licensing. State approval helps programs maintain a share of the teacher preparation market.

California uses the "approved program" approach. Teachers trained in California cannot apply for credentials independently. They must be "recommended" for a credential by an approved program. Most programs are university-based, and to be recommended, students are frequently required to complete coursework tied to educational degree programs.

The Role of Teacher Unions

Teacher unions also have supported state-administered credentialing. State credentialing simplifies efforts to influence teacher preparation and continuing education requirements. Unions also support state credentialing as a way to give teachers control over their profession similar to that exercised by doctors, lawyers and other state-licensed professionals.

In 1946, the National Educators Association (NEA) established the National Commission on Teacher Education and Professional Standards (TEPS). The goal of TEPS was to encourage states to require bachelor degrees and fifth-year coursework for credentials and to eliminate testing as a way to become credentialed. TEPS spearheaded efforts to establish credentialing commissions with teacher representatives to administer state credentialing systems.

By 1960, all but six states had adopted some type of teacher licensing advisory council. In five states, the TEPS commission served in this capacity. In nine states, the councils were created by law and in the remainder they were voluntary. In California, credentialing was administered by the state superintendent until 1970, when it was moved from the Department of Education to the newly established Commission

on Teacher Credentialing (CTC). Under the Ryan Act, most of the voting members must have teaching credentials.¹⁷ With the enactment of the Ryan Act, the structure for managing the teacher workforce was institutionalized in California:

- ✓ The State has a credentialing system that requires new teachers to complete an "approved" preparation program.
- ✓ While teachers can "test out" of some training requirements, four-year college degrees and a fifth-year of training is required to be fully credentialed.
- ✓ Preparation programs must be accredited, but colleges and universities have wide latitude over how they train teachers and what is required to graduate.
- ✓ Teachers trained outside of California are subject to an equivalency assessment process that evaluates their qualifications. This is a logistical nightmare because of difficulties assessing the equality of out-of-state preparation and because credential requirements differ among states.

The State's approach has helped to professionalize and stabilize the workforce. But critics argue that a major overhaul is needed to ensure teachers are prepared to provide a high-quality education to students.

Increasing Accountability

The emerging importance of high-tech industries to California's economic future and the need for a highly trained workforce has focused attention on academic performance. California's once lauded educational system is failing to meet the needs of students. Colleges and universities complain that high-school graduates are inadequately prepared for college-level instruction. Employers complain that public schools are not equipping graduates with the skills needed in the workplace. And parents complain that high dropout rates and social promotion undermine their children's futures.

In response, policy-makers have made K-12 schools a top priority. Voters enacted Proposition 98, which guarantees minimum state funding for schools. And beginning in 1996, the State allocated funding to reduce class size to 20 students in the first three grades. But state dollars come with strings — the largest being a demand for accountability. Among the requirements are:

- ✓ Beginning in 2004, students must pass a High School Exit Examination to graduate.

- ✓ Student achievement is measured using standardized student testing and school academic performance is ranked against other schools.
- ✓ Schools that do not meet performance goals risk state sanctions.
- ✓ The CTC has been directed to align teacher preparation and credential standards with K-12 education goals.

By imposing performance-based accountability, the State fortified its obligation to ensure schools have the resources to achieve the desired outcomes. When the first high school exit test results were released, only 45 percent of the ninth-graders who took the test passed. In low-performing schools (the bottom 20 percentile) with the highest concentrations of non-credentialed teachers only 8 percent of the students passed. Offering an explanation for the difference in performance, Dave Gordon, superintendent of the Elk Grove Unified School District, opined that many students are being taught by teachers who have emergency credentials and "to hold a student accountable for an under-prepared teacher is not fair."¹⁸

The state has not been stingy to schools. Each year the State pumps billions of dollars into K-12 schools and hundreds of millions more into teacher initiatives. Funding for K-12 and higher education programs consumes about half of the State's General Fund.

Efforts to Recruit New Teachers

Since 1998, strengthening the teacher workforce has become a high priority for state policy-makers. Emphasis has been placed on initiatives that advocates say will attract the best and brightest individuals into the teaching profession. The major new initiatives include:

1. ***The Teacher Recruitment Initiative Program (TRIP)*** uses regional recruitment centers as clearinghouses for information on the teaching profession. Special emphasis is placed on recruitment of teachers in hard-to-staff schools (schools with more than 20 percent of the teachers not fully credentialed). The centers conduct outreach programs, screen and distribute teacher resumes, schedule job interviews, provide technical assistance to school districts to streamline hiring processes, and refer candidates to teacher preparation programs.
2. ***The Teaching as a Priority (TAP)*** block grant provides competitive grants to school districts to help lower the number of emergency teachers in hard-to-staff schools. Funds may be used to recruit and retain credentialed teachers through incentives such as signing

bonuses, improved working conditions, improved compensation, and housing subsidies.

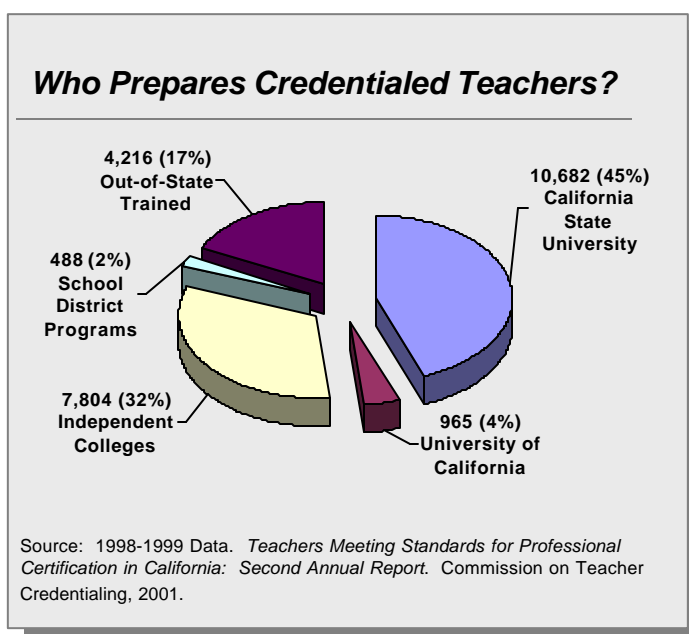
3. **The Cal Grant T Program** annually provides up to 3,000 awards to teachers enrolled in teacher preparation programs. The program provides awards of \$1,600 to CSU students, \$3,600 to UC students, and \$9,000 to students at independent institutions.
4. **The Assumption Program of Loans for Education (APLE)** forgives education loans for students who agree to teach for four years in targeted subject areas, in low-performing schools, schools serving a high concentration of low-income students, or in hard-to-staff schools. The program has been expanded to provide up to \$12,000 in loan assumptions for as many as 6,500 teachers.
5. **The Governor's Teaching Fellowships Program** provides up to 1,000 fellowships with payments of as much as \$20,000 to graduate students who agree to teach for at least four years at a school performing at or below the 50th percentile on the Performance Index. The 2000-01 budget allocated \$3.5 million for the program.

Through these efforts thousands of new teachers are being recruited into preparation programs or linked with schools hiring teachers. Yet many schools still report problems getting and keeping able teachers. These schools complain that not enough trained teachers are available and they must hire teachers on emergency permits and waivers to fill classrooms.

Teacher Preparation Programs

To boost the number of fully prepared teachers the State has expanded existing preparation programs and created new ways to prepare teachers:

California State University (CSU) is the largest provider of teacher preparation in California. In 1997, CSU was given \$5 million to increase the number of new teachers trained. In 1998, it was given an additional \$18 million. In 1999, CSU received \$2.2 million to expand its "intern" teacher-training programs. CSU recommended over 10,000 graduates for credentials in 1999 and has plans to expand that number in the future.¹⁹



Community Colleges also have been enlisted to provide training. The 1999 state budget included \$10 million to initiate the Community College Reading Development Program, which is designed to encourage community college students to pursue teaching careers and to improve the reading skills of elementary students. Up to six units of community college coursework can be applied toward completing a teacher preparation program at a CSU.

The **University of California** prepares about 900 new teachers a year.²⁰ But the UC is expanding its programs and expects to train twice that amount by 2003. The UC also is the lead institution charged with delivering continuing education opportunities for teachers.

Private Colleges and Universities collectively recommend over 7,000 students for credentialing each year.²¹ The State helps students attending 43 approved private programs by extending Cal Grant loans in amounts up to \$9,000 annually.

In addition, other paths have been created to help fill K-12 teacher needs. **Alternative Credentialing Programs** deliver training to the under-prepared teachers already working in schools. Frequently, these

CSU Teacher Initiatives

- ✓ **Fifth-Year and Blended Four-Year Teacher Training Programs.** Offered on 22 campuses, these programs prepare students for K-12 teaching credentials.
- ✓ **Internship Programs.** CSU has more than 475 internship agreements with schools, 21 programs for teacher aids, and district site programs for emergency-permit teachers.
- ✓ **CalStateTEACH.** This multiple-subject credential program uses the Internet, school site mentors and site-visiting faculty supervisors to certify 1,000 teachers annually who have been working with emergency permits.
- ✓ **Design for Excellence Linking Teaching and Achievement Initiative.** DELTA is a professional development initiative to make preparation programs more field-based and responsive to the real world demands of teaching.
- ✓ **Pre-Internship Certificate Programs.** To reduce the number of teachers with emergency permits, this program focuses on subject matter preparation, classroom management skills, student discipline, and teaching methods; 18 CSU campuses, 286 districts and county offices of education, and 5,850 students participate.
- ✓ **Paraprofessional Teacher Training Program.** This program trains classroom aides who want to complete college and earn a teaching credential. It involves collaborative agreements between school districts and county offices of education, community colleges, and accredited colleges and universities; 17 CSU campuses, 53 school districts and county offices of education, 37 community colleges, and 2,940 students participate.

programs are run by districts or operated in partnership with universities. These programs attract more mature enrollees who have difficulties participating in traditional college-based programs.

While alternative training programs are credited with bringing more teachers into the workforce, they have not been expanded adequately to satisfy the demand for new teachers. Many districts do not offer alternative training programs, or have programs that are inadequate to meet the demand for new teachers. Also, once teachers are credentialed they are frequently recruited away to fill vacancies in schools offering better pay and working conditions.

Out-of-State Teachers

Recruiting teachers from outside California has become an important way to acquire new teachers. Out-of-state colleges and universities train more than 17 percent of the new credential recipients.²² Some school districts recruit teachers from as far away as Canada and the Philippines.

The State has simplified credentialing for teachers trained outside California. The CTC studied credential requirements nationwide and determined that 18 states have comparable elementary and secondary credentials and 35 states have comparable special education credentials. CTC also found that 26 other states have at least some comparable teacher requirements for their credentials. Teachers with a minimum of three years of public school experience outside California can apply for a preliminary teaching credential and can teach for up to five years while they comply with any unmet requirements.

Supporting and Retaining Teachers

Despite new teacher preparation programs and expansion of existing ones, schools report that more than 40,000 California teachers – 14 percent of all teachers – lack a California teaching credential appropriate for their classroom. Some experts argue that there are enough trained teachers – if coupled with the experienced teachers moving into California – to meet the needs of schools without having to hire uncredentialed teachers. They suggest some schools are not making a concerted effort to recruit trained teachers and some schools have become so unattractive that teachers will not work there if they have a choice.

In 1997, CTC reported that close to half of the newly hired teachers were leaving the workforce within their first seven years.²³ To curb this

attrition, the State expanded the Beginning Teacher Support and Assessment Program (BTSA). Created in 1992, this program now supports nearly all newly credentialed teachers during the first years of teaching. Approximately 23,500 teachers participated in the BTSA program in 1999-00 and the program was budgeted to serve 26,500 teachers in 2000-01.²⁴

A similar initiative, the California Peer Assistance and Review for Teachers Program (PAR), assists veteran teachers. PAR funding is subject to collective bargaining. School districts can use these funds to improve teaching in a variety of ways: compensation, facility improvement, professional development and for teaching assistants.

PAR is part of a broader strategy to use teacher development programs to encourage higher student achievement. Among the other initiatives:

- **The California Reading Initiative** trains teachers to help K-12 students achieve early literacy. In recent years this program has been expanded to provide training to preschool teachers.
- **The California Subject Matter Projects (CSMP)** trains teachers in schools at or below the 40th percentile on the API. The UC Office of the President administers the program.
- **The California Professional Development Consortia** helps schools and districts implement state curriculum frameworks and build cooperative agreements between districts and institutions of higher learning.
- **The Certification Incentive Program** provides teachers attaining national board certification a one-time award of \$10,000. Teachers can get another \$20,000 if they also agree to work for four years in a school in the bottom half of the API. Teachers also get money to offset national board certification fees.
- **The Math Teacher Instruction Grant Program** reimburses teachers for fees and materials arising from college and university mathematics classes.
- **The Mathematics Professional Development Grant Program** helps schools provide in-service mathematics teacher training.
- **The Advanced Placement (AP) Teacher Training Program** provides school-level grants of \$30,000 for advanced placement teacher training and to improve student access to advanced placement courses.
- **The Bilingual Teacher Training Program (BTTP)** assists districts to provide training to non-bilingual teachers who work under waiver agreements with English language learner students.

- ***The Middle Schools Demonstration Program*** helps meet academic achievement goals by providing added funding to middle school teachers.
- ***The Immediate Intervention/Underperforming Schools Program (IIUSP)*** allows schools scoring in the bottom half of the API to receive grants up to \$50,000 to design an action plan to improve student achievement. Districts that submit acceptable plans under the program are eligible for additional grants of up to \$200 per pupil for up to 3 years to implement their plan. This program is part of the State's efforts to hold schools accountable for academic performance improvement. Schools that fail to meet performance goals are subject to sanctions.
- ***The School Improvement and Pupil Achievement Block Grant Program*** targets \$425 million to improve schools. The program earmarks \$180 million for schools to use for instructional materials, staff development, computers and educational technology, and library materials. The remainder is provided to school districts for school safety, deferred maintenance or facility improvements, technology staff development, or educational technology connectivity.

While these initiatives were designed to increase student performance, they also increase the opportunities for teachers to be successful. As a result, they stand to bolster the quantity of capable and committed teachers.

Raising Teacher Compensation

Teacher compensation has lagged behind other professions, making it one of the lowest paid careers for college graduates. The State has responded in a number of ways.

In the 2000-01 budget, \$55 million was earmarked for districts to increase beginning salaries of credentialed teachers to a minimum of \$34,000. The State also enacted legislation to provide \$218 million in tax credits for K-12 teachers. The tax breaks range from a \$250 credit for a teacher with four years of service to a \$1,500 credit for teachers with 20 years of service. The State also established a tax-deferred annuity equivalent to 2 percent of a teacher's salary.

Additionally, the Academic Performance Index (API) School Site and Employee Performance Bonuses Program offers rewards of up to \$150 per pupil to all schools, regardless of prior performance, who meet or exceed their API growth goals. This program provides approximately \$577 million to about 4,500 schools with improved rankings on the API.

In addition, the Certificated Staff Performance Incentive Awards program provides \$100 million to give teachers bonuses of up to \$25,000.

District officials have long complained that inadequate state funding prevented them from offering competitive salaries and benefits to teachers. The State has increased per pupil support to \$7,002 a year, providing districts more revenue to raise teacher salaries, purchase school materials and improve school facilities.²⁵

The State also is reducing disincentives for retired teachers to return to the profession. Previously, retired teachers suffered a reduction in retirement income if they returned to work in schools, even part-time. Recent legislation allows retired teachers to return to the classroom to mitigate teacher shortages caused by class size reduction or to mentor new teachers without reducing their retirement income.

Challenges Ahead

As in earlier periods, the debate among California policy-makers reflects a national discussion about how to improve student achievement. Just as the shift from an agrarian to an industrial economy changed the nature of education, the needs of high-tech industries for a workforce proficient in science and math has increased new pressures to raise student achievement.

Because teachers are engines of that achievement, California is re-examining the adequacy of its efforts to maintain a strong teacher workforce. In particular, a number of major questions confront California policy-makers:

- ✓ Many schools complain that they cannot recruit enough credentialed teachers. Schools also complain that many new teachers graduating from approved preparation programs lack the skills needed to be successful, particularly in the most challenging school environments. Changes are needed to ensure enough new teachers are being prepared and that these teachers have the skills and commitment to be successful career teachers.
- ✓ Credentialing should screen out inept teachers without precluding capable ones from teaching in the schools that need them. But credential procedures are so complex that potentially able teachers choose jobs with lower hurdles. The credentialing process needs to be streamlined without compromising the quality of teachers.
- ✓ Schools with the worst facilities, lowest pay and most bureaucratic management have the worst teacher workforce problems. Yet with hundreds of these schools throughout the state, it is difficult to target

assistance to where it is needed. Troubled schools need to become more attractive to capable teachers.

- ✓ The State is investing billions of dollars in teacher programs. Coordination and alignment of these initiatives is critical to success, yet the State has not established an infrastructure to oversee these initiatives, evaluate their effectiveness and provide policy-makers with recommendations for improvements. Someone needs to be charged with managing teacher workforce initiatives.

The following findings and recommendations build on the evolution of educational policy in California, yet recognize that policies must respond to new demands, conditions and needs.

Teacher Preparation

Finding 1: State training strategies do not prepare enough credentialed teachers who are committed to being career teachers, particularly in needy schools.

To meet the needs of schools, California's teacher preparation programs will need to increase the number of teachers being trained and do a better job preparing them for the challenges they face in schools.

To provide enough teachers, the preparation programs must recruit and train enough new educators to fill the growing number of classrooms and to replace teachers who leave the profession. The programs also must resolve the “deficit” of credentialed teachers, represented by those working on emergency permits or credentials, by training those individuals or others to take their place.

The issue of quality is more difficult to quantify. Teachers who are well prepared are not only more successful in working with students, but are more likely to stay in the classroom, reducing the demand on preparation programs to produce more teachers.

School administrators complain that many new teachers produced by state-accredited preparation programs are not adequately prepared for the classroom.

The San Juan Unified School District, for example, asked its administrators to assess how well prepared new teachers were for the difficult job before them.

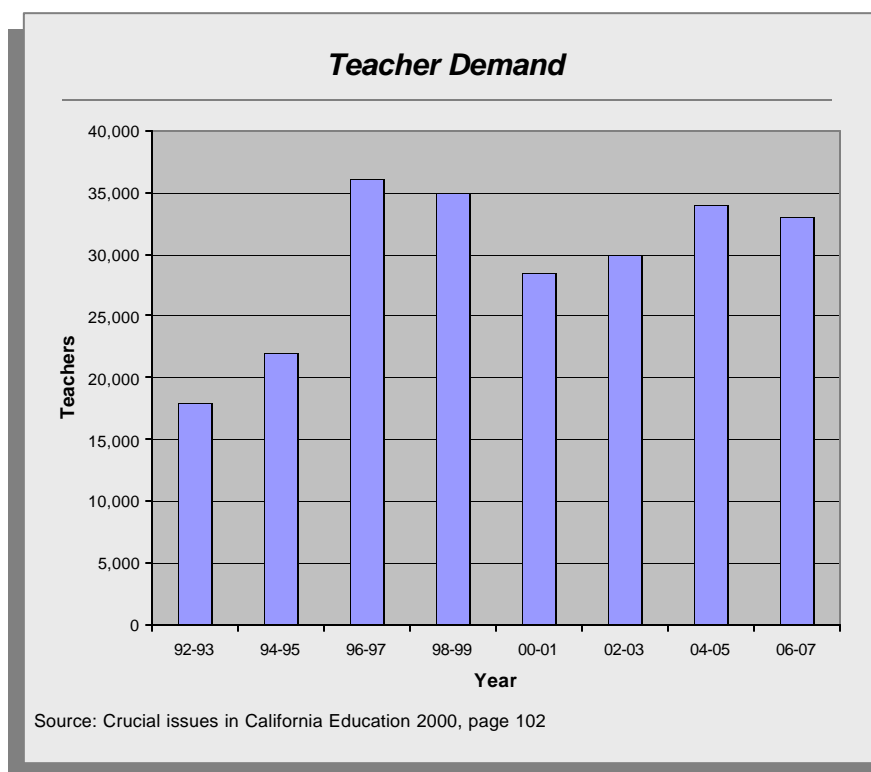
In some critical areas, such as the capability to help all students learn regardless of their ability, a majority of the administrators said new teachers were inadequately prepared. More than 60 percent of administrators said new teachers were not adequately prepared to manage a classroom. More than 55 percent of administrators said new teachers were not prepared to meet the needs of students from diverse backgrounds.²⁶

Yet San Juan is fortunate; nearly all of its new teachers meet state standards and are credentialed. The situation is worse in districts that must use teachers on credential waivers and emergency permits to put someone in charge of every classroom.

Teacher Demand

In 1999, teacher preparation programs in California recommended almost 20,000 new teachers for credentials. Combined with experienced teachers moving into California, more than 24,000 credentialed teachers were added to the workforce.²⁷ Still, schools have not been able to hire enough credentialed teachers to meet all of their needs and must make up the difference by hiring non-credentialed teachers. Schools report they employ more than 40,000 teachers – about 14 percent of all classroom teachers – under emergency permits or credential waivers.²⁸

Part of the problem is that preparation programs are not producing enough graduates who are willing to work in the schools needing teachers. The Center for the Future of Teaching and Learning's most optimistic projections suggest that there will not be enough new teachers prepared to meet classroom needs until 2006.²⁹



In addition, the Commission identified a number of problems that diminish the quality of programs that prepare new teachers:

- **Wrong Recruits.** Many graduates are not willing to work in needy schools. Some programs – such as the Milwaukee Teacher Education Center (MTEC) in Wisconsin – screen candidates for the characteristics needed to succeed in challenging schools. The Milken

Foundation and other experts assert that the entrance requirement for teacher-preparation programs – a college GPA of 2.5 – is too low.

- **Training Lacking.** Graduates do not receive the training – pedagogical and subject matter – needed to teach in schools. Master Teacher Sandy Dean reported to the Commission that too many new teachers are coming into schools unprepared for the challenges they face.
- **Wrong Training.** School administrators say graduates are getting too much of the wrong pedagogical training. One principal testified that new teachers are not trained to be effective in schools with high concentrations of low-income and English learner students.
- **Not Customer Driven.** Many college and university programs are not responsive to the needs of schools or the teachers that need training. At some universities, courses are only offered in the day when emergency-permit teachers are working. Some programs refuse to accept coursework completed at other institutions. And many programs will not partner with schools to tailor training to the teaching needs of students in their school.

Naranca Elementary School Principal Linda Fisher, reported: "We have four different universities who place student teachers at our site, with very different readiness levels of their graduates. The quality of the programs needs to be addressed in regards to the employability of the graduates."

Testimony to the Commission 1/19/01

The former principal of an elementary school in Inglewood testified that some university programs “hampered more than they have helped, because what they are taught conflicts with what we do... These interns rejected our program of teaching basic skills and strict discipline.”³⁰

Credentialing Emergency-Permitted Teachers

Many newly credentialed teachers start their classroom careers working as non-credentialed teachers. The California Commission on Teacher Credentialing reports that of the 24,000 new credentials issued in 1999, more than 15,000 went to individuals with emergency permits or other certifications.

Many of these teachers presumably start out in hard-to-staff and low-performing schools, since these schools employ the highest number of emergency-permit teachers. Unfortunately, too many of these teachers leave these schools after earning their credential. Most move on to schools offering better pay and more attractive teaching environments.

This constant exodus of trained teachers means the less-attractive schools are persistently relying on inexperienced teachers.

But some schools are building training programs designed to develop a professional cadre of highly effective teachers. These schools see novice teachers as sources of new energy and ambition that can help boost academic performance. The Commission heard testimony from several administrators who say they prefer to recruit and train their own teachers rather than rely on teacher training programs far removed from the challenges of daily learning.

Models for Success

One model for such efforts is the Elk Grove Unified School District, which established its own teacher preparation program. Participants complete a rigorous program that equips them for a credential and success in the classroom. By running its own program the district ensures the training is aligned with its educational goals.³¹ The district hires about 80 percent of the program's graduates, and the superintendent reported that 97 percent of the graduates are still employed by the district. The superintendent testified:

I credit that outstanding retention rate to three things: Support from day one by our program directors to help our trainees adjust to the program. Hands-on training that prepares teachers for the classroom. And continued support when they start teaching.

To develop committed and quality teachers, principals in three exceptional Southern California elementary schools reported that they train their own teachers. Nancy Ichinaga, a member of the state Board of Education and a former principal, said she was routinely dissatisfied with the caliber of graduates from university-based programs. She found that those graduates did not have the skills to be successful, particularly at her urban school.

These principals said they work with new teachers to lead their classrooms and improve their abilities. They also screen new teachers for a commitment to teach needy students. And they assess teachers and use student success to target additional training and reward successful teachers.

California does have some innovative university-based efforts that tailor training to the needs of neighborhood schools. At the University of California, Los Angeles, the Center X program searches for individuals interested in promoting social justice and committed to improving

educational outcomes for economically disadvantaged children. Center X then provides the rigorous training and a framework of support that empowers teachers to be successful. Center X reports that graduates are making a career serving and inspiring educational success among students in needy schools.

Other states have similar problems training and retaining teachers. Some are pioneering efforts to develop new ways to increase the supply of well-trained and committed teachers available to schools. Wisconsin has done just that at its MTEC.

Milwaukee public schools, working with state agencies and the private sector, use aptitude tests and preparation strategies pioneered at the University of Wisconsin to recruit and train high-quality teachers who are committed to work in the most challenging schools.³² Applicants are screened for the characteristics needed to succeed in these schools. Universities partner with the Milwaukee Teacher Education Center (MTEC) to bring the best training programs to the teachers in the schools. The new teachers learn by doing and seeing first-hand how high-quality pedagogical skills promote student success. Most importantly, once fully trained and credentialed, these teachers remain in these schools becoming career master teachers.

Professor Martin Haberman of the University of Wisconsin, School of Education, believes a critical element of MTEC's success is the careful screening of candidates, before the state invests in their education.

Massachusetts took another approach to its teacher preparation problem. Beginning in 1998 it began requiring credential applicants to pass tests designed to measure the knowledge it determined was critical to good teaching. The first time the test was administered, more than half the prospective teachers failed – many of them graduates of prestigious preparation programs.³³ Programs with high failure rates were put on notice that the state would revoke their accreditation if students' passage rates did not reach acceptable levels. Since then the state reports that the passage rate for the test has steadily increased.³⁴ Many observers believe the Massachusetts experience is not unique and

Milwaukee Teacher Education Center

The MTEC is a collaborative effort of community organizations, education institutions and Milwaukee public schools. The program is based on five principles:

- ✓ Training is centered on what successful urban teachers know works best based on their experience in schools.
- ✓ Trainees are required to incorporate effective pedagogical practices in their teaching.
- ✓ Recruitment is targeted at college graduates from a variety of disciplines, adults with experience in various occupations or child rearing, and members of minority groups.
- ✓ Participants are selected based on validated interviewing procedures that predict success with youth.
- ✓ Graduates are provided mentors, coaches and resources needed to teach, but if their students do not learn the teacher is dropped from the program.

Source: *The Milwaukee Public Schools: How a Great City Prepares Its Teachers*, Martin Haberman, Kappa Delta Pi Record, Fall 1999.

shows most teacher preparation programs are out of sync with the education needs of schools.

In addition to testing, Massachusetts has decided to raise the performance bar for preparation programs by establishing its own teacher preparation academy. The Massachusetts Institute for New Teachers (MINT) gives the state the ability to carefully and quickly target resources at particular gaps in its teacher workforce. MINT is an alternative pathway into teaching for about 500 teachers a year who are recruited nationwide. In addition to tuition-free education and a streamlined pathway to a credential, the program offers \$20,000 signing bonuses to highly talented, newly MINTed teachers who take jobs in some of the most needy schools in Massachusetts.³⁵

Like Massachusetts and Wisconsin, California needs to do more to increase the quantity and improve the quality of new teachers prepared in California. The State already invests heavily in teacher preparation programs run by departments of education at the California State University and the University of California. The State's public universities are trying to expand the number of teachers being trained and want to improve the quality of their programs. But to accomplish this task, greater effort needs to be made to align the preparation being provided in these programs with the needs of schools.

San Jose State University Professor Nancy Markowitz testified that the traditional preparation approaches are obsolete. She is the director of the Triple "L" Collaborative, a model of school-university cooperation that aligns the training needs of local schools with the training provided by her university. Typically, the interaction between universities and schools is restricted to placing student teachers. She said there is little communication between the two on basic issues such as how to assess teacher performance and how new teachers should be prepared. Veteran teachers are not viewed by universities as a resource. Her program is developing partnerships with schools to ensure her teachers-to-be are fully prepared. This effort shows that teacher preparation programs can be customer-driven and aligned to the needs of schools.

The importance of this alignment is reinforced by the work of Mr. Michael Kass, director of the Teacher Quality Collaboratory at the Joint Venture Silicon Valley Network. His organization represents a broad alliance of K-12 educators, universities and business groups that are working to improve educational outcomes. In particular, the Collaboratory focuses on how children learn and making sure that teaching methods reach all students. Both initial training and professional development are considered essential to improved learning.

Creating New Solutions & Expanding What Works

The challenge facing policy-makers is to encourage universities to be more responsive to their customers – the students who will become teachers and the school districts that will employ them. One way to accomplish this goal would be to give greater control to those customers in determining which colleges and universities receive additional funds. Rather than the State allocating resources to the higher education system, more of those funds could be allocated to schools for use as scholarships – allowing the employer to sponsor prospective teachers at the preparation program that best meets their needs.

More directly, the State could create a teaching academy, independent of the university systems, to prepare top-notch instructors. This academy could be a world-class institution that attracts the most talented minds to be leaders in improving teaching in the State's schools. A state teacher academy could serve as an incubator for innovative approaches to teaching and be a benchmark to evaluate the effectiveness of other preparation programs.

California Teacher Academy Training Our Own

To improve the teacher workforce, California could establish its own academy to provide world-class preparation. Massachusetts already has its academy. Other academies — West Point, Annapolis and the Airforce's academy in Colorado Springs – offer a recipe. They provide premier education opportunities that attract the best minds and build a cadre of career professionals dedicated to a specific purpose. Potential benefits of a teacher academy could include:

Fill Workforce Gaps: The academy would allow the State to target resources at gaps in the labor pool. For example, it could upgrade subject matter knowledge of science and math teachers to meet new curriculum standards in middle schools. Or it could train new teachers to be career educators in schools with some of the most difficult academic challenges.

Incubate Innovation: The State could test innovative preparation strategies. Piloting its own teacher initiatives gives the State valuable knowledge and benchmarks for evaluating the effectiveness of teacher preparation and professional development strategies.

Performance Baseline: The State could track the performance of academy graduates and evaluate their performance compared to graduates from other preparation programs. This would give the State important baseline data for making research-based investment decisions.

Recognize Teaching: Establishing an academy would send a strong message that capable teachers are vital to the State's future. It would create an elite cadre of professionals whose commitment and achievement would be an example for others considering a teaching career.

Leverage Supply: An academy could provide a valuable tool for adjusting the supply of new teachers on a year-by-year basis. When new teachers are in short supply the academy could boost new teacher preparation efforts. When enough new teachers are available, efforts could be shifted to upgrading skills in the workforce through professional development.

The academy campus might be established at one of the existing public college or university sites, if appropriate. Academy facilities should be first rate, offering students an attractive campus with the best instructors, facilities and equipment.

Regardless of where they are enrolled, the State needs to make sure that the students it is subsidizing are committed to teach in California's schools. While precise data is lacking, administrators acknowledge that many graduates do not go to work in schools or remain in teaching only a short time. California should not waste resources on individuals lacking the commitment and temperament to be career educators. The experience in Wisconsin shows that students can be screened – with greater than 90 percent accuracy – for the aptitudes associated with being successful teachers.

The Commission applauds efforts to encourage students to choose careers in teaching. The State could do more by helping to ensure that every emergency-permit teacher has access to state-funded training. The State also could expand present loan forgiveness programs to teachers who commit to work in low-performing schools. These two efforts show great promise in significantly reducing the number of non-credentialed teachers in the most needy schools.

Recommendation 1: The State should target teacher-training resources to create a pool of capable teachers committed to teaching careers in California's schools, and particularly schools with the greatest educational challenges. The Governor and Legislature should enact legislation to implement the following initiatives:

- ❑ **Career Teachers.** The State should target teacher training investments at programs that screen teacher candidates for the aptitude and commitment to teach in hard-to-staff schools and give preference to candidates most likely to succeed in those schools:
 - ✓ School districts should be given resources to provide scholarships so they can determine which candidates and programs meet their needs.
 - ✓ Teachers working on emergency permits or waivers should be provided state-funded teacher credential preparation. These teachers should be screened for an aptitude and commitment to teaching as a precondition to working under emergency permits.
 - ✓ The State should expand funding for partnerships between schools and teacher preparation programs that ensure preparation, credentialing and professional development are aligned with the workforce needs of schools.
 - ✓ Loans, grants and forgiveness programs should give priority to teachers committed to working in hard-to-staff schools. For example, newly credentialed teachers who successfully perform in a hard-to-staff school for five years should have all preparation and credentialing costs paid by the State.

- ❑ **CSU and UC Programs.** The State should enact legislation to improve the quality of the teacher preparation programs at the California State University and the University of California.
 - ✓ The State should link CSU and UC teacher preparation funding to how well they prepare teachers for needy schools and how long teachers teach in those schools. Preference should be given to teacher trainees that schools want to employ.
 - ✓ The State should require the CSU and UC to place student teachers in hard-to-staff or low-performing schools in equal proportion to the teachers needed in these schools.
- ❑ **State Teacher Academy.** The State should explore establishing a premier teacher academy to recruit, prepare and deploy the highest caliber teachers in needy schools. The academy should be used to pilot the most advanced techniques in pedagogical training and as a means for the State to directly increase the supply of highly qualified teachers available to the most needy schools.

Credentialing

Finding 2: The State's credentialing process is an obstacle to employing more fully credentialed teachers.

The California Commission on Teacher Credentialing (CTC) was created to ensure teaching quality by regulating the preparation of new teachers. It pursues these goals by accrediting teacher preparation programs and certifying that teachers meet minimum standards. The Commission is expected to be a bridge between those programs that are preparing teachers and the schools where they must teach.

As California has attempted to improve its workforce of teachers, the CTC has been given the added responsibility of administering school-based programs intended to develop teachers working under emergency permits into fully credentialed teachers.

The previous finding described weaknesses in the preparation program. After candidates complete their preparation, they must then navigate an increasingly complex credentialing process that neither efficiently nor effectively ensures a high-quality workforce.

Ensuring Quality

When California last overhauled its teacher credential system, it wanted to create a licensing regime that ensured a high-quality teacher workforce.

The Ryan Act, which separated credentialing from the State Superintendent's responsibilities, created the CTC in 1970 and charged it with developing and implementing standards for preparation programs. The act gave the commission responsibility for licensing teachers and enforcing professional standards.

The commission has 15 voting members: one represents the state superintendent of public instruction while the Governor selects the remaining 14. The Governor appoints six classroom teachers, one school administrator, one school board member, one school counselor

Commission on Teacher Credentialing

CTC processes more than 200,000 credential applications annually. Most of them are renewals. But it also issued more than 24,000 new teaching credentials in 1999. The commission's activities include:

- ✓ **Regulatory Activities** Establishes and administers teacher credential procedures and standards to implement state statutes.
- ✓ **Certification Activities** Issues credentials to qualifying teachers. CTC also can deny or revoke credentials when requirements are not met or in cases of misconduct.
- ✓ **Accreditation Activities:** Reviews and accredits teacher preparation programs; some 79 institutions are accredited.
- ✓ **Workforce Activities** Administers programs designed to expand and improve the teacher workforce such as the Alternative Certification, Teacher Development, and Beginning Teacher Support and Assessment programs.

Source: CTC 2000 Annual Report and Teachers Meeting Standards for Professional Certification in California: Second Annual Report, February 2001

or services credential holder, one higher education faculty member, and four public members. Additionally, the Association of Independent California Colleges and Universities, the University of California, the California State University, and the California Post-secondary Education Commission, each appoint one non-voting commissioner.

The CTC is funded by a combination of General Fund appropriations and the revenue from credential fees. Its budget has increased significantly as the commission has taken on a large role in the State's educational reforms. In addition to efforts to improve the credentialing process itself, the commission now distributes funds to school districts training their own instructors. In the 2000-01 budget, the commission controlled more than \$110 million, which financed its operations and local training programs.

In addition, the CTC draws upon experts from the K-12 and higher-education communities to serve on committees and advisory bodies that help develop standards and requirements for educator training and credentialing.

Teacher Credentialing Requirements in California

1. **Preparation Program.** Teachers complete approved teacher preparation. Only approved training institutions can recommend teachers trained in California for credentials. These teachers may not apply independently. Teachers trained out of state meet equivalency requirements.
2. **Knowledge.** Teachers are required to have a bachelor's degree and demonstrate knowledge ability by passing tests and completing required coursework:
 - ✓ **CBEST** – The California Basic Education Skills Test is required for all credential applicants.
 - ✓ **MSAT** – The Multiple Subjects Assessment for Teachers is required for a multi-subject credential if the candidate cannot show that they have completed an approved subject matter program.
 - ✓ **RICA** – The Reading Instruction Competence Assessment is required by individuals teaching multiple subjects.
 - ✓ **PRAXIS/SSAT** – Similar to the MSAT only for specific subject areas teachers are credentialed to teach.
 - ✓ **CLAD/BCLAD** – These exams are required for English language teacher credentials.
3. **Personal Fitness – Criminal Activity Check.** Every candidate must pass a fingerprint check by the Federal Bureau of Investigation and the California Department of Justice.

Source: CTC 2000 Annual Reports.

Credentialing Problems

Done right, the credentialing process keeps bad teachers out of schools without creating barriers for good ones. But critics charge California's credential process is not accomplishing that end. EdVoice, a grassroots educational reform organization, argues that too often less competent teachers that have a credential are hired over more experienced and knowledgeable non-credentialed teachers. Alternatively, teacher unions argue that too many under-qualified teachers are allowed to work in schools using emergency permits and credential waivers authorized by the CTC. And school administrators complain that credentialing does not guarantee teachers are qualified or prepared for the rigors of teaching.

An example of the current problem is an uncredentialed private school math teacher with ten years of teaching experience in the subject to be taught. If they applied for a public school job today, they could not be hired over a credentialed teacher that has little competency in the subject.

EdVoice

The Commission found evidence that several aspects of teacher credentialing diminish its efficiency or effectiveness:

- ✓ **Credential requirements are not performance-verified.** The CTC does not evaluate new credential holders to determine if credential requirements are ensuring they are equipped to teach. As a result, CTC lacks accurate data to determine if credential standards are appropriate to the needs of schools. It also lacks the right data to assess how well the institutions it has accredited are actually equipping new educators.
- ✓ **The credential requires completion of training rather than ability to teach.** Prospective teachers should complete training needed to fill knowledge gaps, but teachers are often required to complete training that may add little to their abilities. For example, credential candidates who complete approved training programs prior to earning their bachelor's degree must sometimes complete up to a year of additional work beyond what others complete for the same credential. Kindergarten teachers must complete coursework on the U.S. Constitution. And teacher unions complain that requiring teachers to complete 150 hours of continuing education to renew their credential is unnecessary if teachers are performing well in the classroom. These are symptoms of a system that measures inputs (training) instead of output (performance).
- ✓ **Credential requirements are not ensuring a quality teacher workforce.** The CTC provides so many exceptions, that its minimum standards are not the rule. Workforce studies show that 14 percent of all teachers do not meet the credential requirements for the classes that they teach. Schools regularly receive CTC approval to hire

instructors working under emergency permits and credential waivers. Critics argue that talented individuals with extensive subject matter knowledge and private school teaching experience could be tapped to meet the needs of schools if the credentialing process was streamlined. Yet while thousands of able teachers struggle through a maze of cumbersome requirements to earn credentials, only the most obviously undesirable teachers lose theirs as a result of credential enforcement actions.³⁶

Bureaucratic Maze

California's credentialing process is a complex labyrinth that tests persistence and endurance rather than the ability to teach. The handbook used by the CTC spans over 1,000 pages, detailing the multiplicity of requirements and routes to obtaining credentials. The previous table outlines requirements for a teaching credential. To meet credentialing requirements most teachers complete one to two years of teacher training in addition to earning a bachelor's degree and satisfying subject matter knowledge requirements.

Yet school administrators and veteran teachers report that the maze of tests, checks and procedures is not ensuring credential teachers are capable. Without the State providing a year or more of assistance to new teachers, CTC expects that up to half of the State's newly credentialed teachers would leave the profession in the first few years. And veteran teachers testified to the Commission that most new teachers were not prepared for the challenges they faced in their classrooms.

The CTC also is responsible for disciplining teachers for fitness-related misconduct. The CTC's Committee of Credentials is a statutorily established body comprised of seven members appointed by the commission. The committee reviews allegations of misconduct against teachers, some of which may also be the subject of criminal investigations. These charges can be as minor as petty theft or as serious as murder or child molestation. The committee's task is to determine if a teacher's actions should effect their license. School districts also notify CTC of dismissals, suspensions of more than 10 days, resignations or retirements while allegations of misconduct are pending, or decisions not to employ or re-employ teachers for cause.

On the basis of its investigation, CTC may impose disciplines such as private admonitions, public reprovings, credential suspensions for a specified period, or the revocation of a credential. Teachers have the right to a hearing before an administrative law judge prior to final action

by CTC. In 2000, CTC opened 7,273 misconduct cases. CTC took action on 369 cases and revoked 170 credentials.

Aligning Credentialing to Teaching Requirements

In theory, credentialing should mean a teacher is fully equipped to fulfill classroom teaching. But Nancy Ichinaga, a member of the State Board of Education, told the Commission that as a principal she found many newly credentialed teachers had the wrong preparation for success. Ms. Ichinaga reported that she preferred to hire non-credentialed teachers and train them in the skills needed to teach students in the school she administered.³⁷

The State already recognizes what school administrators like Ms. Ichinaga report regarding the inadequacy of a credential to signify a fully prepared teacher. Acknowledging that as many as half the newly credentialed teachers would leave teaching within the first few years without additional support and professional development, the State established the Beginning Teacher Support and Assessment (BTSA) program. Administered jointly by the CTC and the Department of Education, this program provides novice-credentialed teachers practical, hands-on mentoring and support in the first two years of teaching. The enacting language for BTSA specifically notes that the program is intended to decrease attrition rates of new teachers and assure that new teachers who remain in teaching have attained acceptable levels of professional competence.³⁸ The high number of teachers who fail without BTSA, and the complaints from school administrators about poor teachers with credentials, strongly suggests that credential standards need to be verified against actual teaching requirements of schools.

Data collected through the BTSA program, coupled with school API data, gives the State an opportunity to align credential standards based on what actually works, rather than theories or best guesses. The State could develop a credential verification process based on performance that ensures credential standards reflect actual teaching requirements. As education requirements change, CTC would be alerted early to problems and could make adjustments to ensure standards remained aligned to teaching requirements.

Some Reforms Underway

California has initiated significant reforms to improve the quality of credentialed teachers and to eliminate the unnecessary obstacles to receiving a credential.

In 1998, the Legislature at CTC's behest passed a law to align teacher preparation requirements with state education goals.³⁹ Guided by this law, CTC is conducting a multi-year effort to develop new standards for subject matter knowledge, pedagogical preparation and teacher induction.

CTC also is developing a process designed to verify teaching ability as a precondition for credentialing. According to CTC, one benefit of this effort will be to allow some teachers to substitute completion of the Beginning Teacher Support and Assessment Program (BTSA) for the requirement of a fifth year of coursework. Since most new teachers are completing BTSA anyway, this should eliminate a major credential hurdle for these teachers.

The new process will be phased in over the next few years and will not be fully implemented until 2004. Until these two efforts are completed, it will be hard to determine whether they solve these problems. Still, these efforts demonstrate that CTC recognizes the shortcomings of the credentialing regime and is making concerted efforts to improve it.

The State also has attempted to streamline credentialing of veteran teachers moving into California from another state.⁴⁰ Teachers trained outside of California can now work in the classroom while they satisfy any unmet requirements. Since much of their preparation is complete, employing teachers trained in other states also reduces California's education-related costs.

Recruiting talented individuals from other states and countries is common in most California industries. Studies of state labor markets indicate that about half of the State's college-educated workers come from other states and countries.⁴¹ But only 17 percent of the teachers issued credentials in 1999 were trained outside of California. California could save millions of dollars in training costs and reduce the problem of under-qualified teachers in its schools if it did a better job of recruiting and certifying teachers trained in other states.

Many individual school districts recruit teachers from beyond the State's borders. For example, the West Contra Costa Unified School District is one of a number of districts that recruit teachers from foreign countries, as well as other states.

But despite already enacted reforms, teacher unions assert that out-of-state teachers are still encountering difficulties complying with credentialing requirements. Out-of-state teachers must show they have "equivalent" qualifications to teachers who were prepared in California. This means collecting and providing CTC with diplomas, transcripts,

proof of licensure, employment records and performance evaluations. The California Teachers Association supports additional streamlining of the process by allowing these teachers to earn their credentials by proving in the classroom that they have the skills to teach during a supervised probationary period.⁴²

Improvement Opportunities

The Commission heard many complaints from teachers and school administrators that the State's credential process needs improvement. Other states have streamlined their credential process and beefed up efforts to recruit already trained teachers from outside their borders. Massachusetts, for example, pays bonuses to well-qualified teachers that sign up to work in its schools. It also conducts multinational searches for teachers with subject-knowledge skills that are in high demand and fast tracks their credentialing.

The Commission heard from teachers that the State has not done enough to eliminate unnecessary burdens in the credentialing process. Teachers complain that CTC has not used its authority over preparation programs to stop them from requiring teachers to duplicate training when a teacher transfers from one teacher preparation program to another. For example, the CSU has a ceiling of six units of transferable community college credit that can be applied toward meeting CSU teacher preparation requirements.

Teachers and union officials also complained that changing requirements for candidates already in training programs unfairly adds to the burdens they face. They argued these individuals could be treated like already credentialed teachers and allowed to meet new requirements when they renew their credentials.

Educators complain that cumbersome and complex credentialing requirements contribute to the shortage of credentialed teachers, forcing many schools to hire non-credentialed teachers. While authorizing emergency permits and credential waivers is a long-used fix for short-term credential teacher shortages, it can seriously undermine the quality of education if it becomes too pervasive.

Teacher workforce studies have documented a steady increase in the use of non-credentialed teachers for almost a decade. Some schools are reporting that more than half their teachers do not have credentials. Critics assert that so many unprepared teachers are working under exemptions that hundreds of thousands of children are not receiving quality education.

But many emergency-permit teachers are capable and committed educators who contribute greatly to the educational success of their students. Analysis of student performance data shows that many schools with high concentrations of teachers working under emergency permits are performing better – as measured by API – than other schools with more credentialed teachers. This suggests that the CTC should focus on streamlining the credential process to fast track capable emergency-permit teachers to credentials and weed out inept ones.

The State also needs to recognize that it has missed an opportunity to use the credential process to recognize the special skills and abilities the best teachers bring to the most challenging schools. The State can help these schools hold on to master teachers by using the credential process to recognize and reward the unique skills and abilities these teachers bring to their school. Creating a special credential would focus attention on the contribution these teachers make. And, like the reward for national board certification, the State could provide a financial award to teachers with the certified skills and the commitment to make a difference in low-performing schools.

The State needs an efficient credentialing process that screens out inept individuals while enabling competent teachers to work in classrooms. In this investigation the Commission saw evidence that credentialing based on approved training is by definition a cumbersome and inefficient approach to licensing. A better approach is to emphasize performance-based credentialing. The Commission was told that in any school everyone knows who the best teachers are. Every school day in California some teachers with credentials fail while some without succeed. The experience of thousands of teachers strongly suggests that it is not important where teachers get teaching knowledge. What is important is that teachers are able to successfully apply teaching knowledge to inspire students to achieve. The best way to determine if teachers have the right stuff is to evaluate their ability to apply teaching knowledge in the classroom.

Recommendation 2: The State should rigorously scrutinize the credentialing process to eliminate unnecessary hurdles, allow for performance-based credentialing and align requirements with the needs of schools. The Governor and Legislature should enact legislation to implement the following initiatives:

- **Verified Standards.** The State should verify the value of credentialing requirements using school performance data. Credentialing requirements should be assessed on their usefulness to ensure teachers are capable. Credential requirements that are not verified measures of teaching ability should be eliminated.

- ❑ **Out-of-State Recruitment.** The State should expand efforts to recruit capable teachers from outside of California. In addition to nationwide outreach and monetary incentives, the State should create a fast-track that credentials out-of-state teachers based on their teaching ability, not equivalency assessments. For credentialing purposes, experience in private schools should be counted in the same ways as experience in out-of-state public schools.
- ❑ **Performance Credential.** The State should allow teachers to prove during a probationary period that they possess the knowledge and skills for a credential based on their teaching performance. For example, a school specific credential might be granted if a school principal and two other credentialed teachers assessed a candidate's performance, teaching skills and subject matter knowledge and recommended the teacher.
- ❑ **Challenged School Credential.** The credential process should recognize that schools serving low-income, high-need communities frequently require teachers with extraordinary abilities and skills beyond those required for a full teaching credential. A special credential for these teachers should be established and resources should be targeted at expanding the number of teachers with these skills and abilities. The State also should provide these teachers with financial rewards for raising academic achievement in low-performing schools.
- ❑ **Time Limit.** Time limits on emergency permits should not penalize under-credentialed teachers who add to a school's academic achievement. The State should establish a waiver allowing these teachers to continue teaching under the school's sponsorship, provided they are helping the school achieve academic performance goals.
- ❑ **Training Credit.** For credentialing purposes, the credentialing commission should recognize and give credit for teacher preparation completed at any approved teacher training program. Likewise, CTC should ensure that training programs do not require duplicating successfully completed work at another accredited program as a condition of admission, graduation or recommendation for a credential.
- ❑ **Requirement Changes.** Teachers should not be denied credentials because of new credential requirements that were added during their preparation. The State should treat these teachers in the same way that already credentialed teachers are treated when new credential requirements are imposed.

Compensation

Finding 3: Teacher compensation does not reward performance, provide a career ladder for the best teachers, or compensate instructors in hard-to-staff schools for the benefits they bring to those communities.

Intuitively the public, policy-makers and school administrators understand that competitive compensation is critical to attract and retain capable teachers. The more difficult question is how to structure salaries and benefits to most efficiently attract and retain able teachers, and ultimately produce the best educational outcomes.

Compensation can be a powerful device for influencing the dynamics of the teacher workforce:

- ✓ Competitive compensation is a prerequisite for attracting talented individuals to become teachers. And structured wisely, it can encourage the best teachers to remain in the classroom longer.
- ✓ Salaries and benefits compensate teachers for the time they devote to students and for the expert knowledge they bring to classrooms. When teachers believe they are fairly compensated, morale is improved and performance is enhanced.
- ✓ Compensation also can reward teachers for continuous improvement through professional development, for achieving mastery in their profession, and for providing additional value to challenging schools.

Attracting & Retaining Teachers

Attracting and retaining quality teachers is a growing concern nationwide among education officials and the public.⁴³ This is especially true for beginning teachers. School districts must compete with each other and other industries for additional personnel to fill vacancies created by growing enrollments and an aging workforce of experienced teachers nearing retirement.⁴⁴

The average salary for a beginning teacher in California is \$32,190. Only Alaska pays more – \$33,676. Nationally, the average beginning teacher salary in 1999-2000 was \$27,989. The other states paying high starting wages were New York at \$31,910, Delaware at \$30,945, and Washington, D.C., at \$30,850.⁴⁵

Average Beginning Salary in Western States 1999-2000	
California	\$32,190
Oregon	\$29,733
Nevada	\$28,734
Washington	\$26,514
Source: Survey and Analysis of Teacher Salary Trends 2000, American Federation of Teachers.	

While California's salaries are high compared to other states, compensation is still cited as contributing to the teacher shortage. As evidence, advocates compare salaries of teachers with those earned in other professions with similar educational requirements. The national average starting salary for engineers is \$47,112, for computer science professionals \$46,495, for business graduates \$40,242, and for chemists \$38,210.⁴⁶

How Schools Compensate Teachers

Compensation for teachers is based primarily on years of experience, educational attainment and credential status. Also, compensation varies from district to district because of differences in district revenues, the need for teachers, and collective bargaining agreements. Teachers in high-paying districts can make thousands of dollars more than those in low-paying ones.⁴⁷

Regional Teacher Labor Market Differences Percent Not Certified and Beginning Salary 1997-1998

Region	% Not Certified	Average Salary
Northern California	2.0 %	\$27,568
San Diego/Imperial	2.8 %	28,998
Sacramento Area	3.1 %	28,189
South Coast	4.4 %	29,590
North Central Valley	4.8 %	29,574
Orange	5.7 %	30,096
S.F. Fay Area	6.0 %	29,749
Central Coast	7.7 %	27,247
South Central Valley	7.9 %	29,556
San Bernardino/Riverside	11.3 %	30,526
Los Angeles	17.4 %	30,788

Source: Rueben, Kim S., Jane L. Herr, *Teacher Salaries in California*, Public Policy Institute of California.

Labor market studies also indicate that the percentage of credentialed teachers in schools varies considerably throughout California. For example, a 1998 regional labor market study shows that schools in Northern California paying the lowest average new teacher salaries (\$27,568) also had the lowest percentage (approximately 2 percent) of non-certified teachers. Conversely, Los Angeles County had the highest average new teacher salary (\$30,788) but also the highest percentage (approximately 17.4 percent) of non-certified teachers.⁴⁸

This suggests that compensation issues vary among regional labor markets. To be effective, attention should be paid to regional labor market differences and the extent compensation changes will impact hiring in schools. If schools are losing credentialed teachers to other industries or schools in their region, raising compensation can help them attract more credentialed teachers. Alternatively, increasing teacher pay in schools already staffed by credentialed teachers has little benefit, and could aggravate attempts to lure quality teachers to hard-to-staff schools.

The State's role is limited because most compensation decisions are delegated to districts, which means the State must rely on incentives or other cues to influence local decisions. The State's task is further complicated by the diverse circumstances of more than 1,000 local school districts. Both factors underscore the need to base policy decisions on compensation models that have been proven to improve educational outcomes.

Recent Compensation Initiatives

Advocates argue that higher salaries will encourage emergency-permit teachers to pursue credentials and help to retain credentialed teachers.⁴⁹ Two years in a row, California raised salaries for beginning credentialed teachers. In 1999, the State provided funds to raise the beginning salary to \$32,000.⁵⁰ In 2000, the State allocated another \$55 million, raising the base salary to \$34,000.⁵¹ Legislation was introduced in 2001 to raise the beginning salary to \$38,000.⁵²

According to the Commission on Teacher Credentialing, efforts to encourage emergency teachers to earn credentials are working. In 1999, more than 75 percent of the teachers recommended for credentials by colleges and universities had previously been authorized to teach under an emergency permit or other exemption to the credential requirement.⁵³

But raising salaries for credentialed teachers has not yet decreased the number of teachers with emergency permits. According to the Center for the Future of Teaching and Learning, more than 14 percent of the State's teachers lack appropriate credentials for the classes they teach.⁵⁴ This represents a more than doubling in the use of non-credentialed teachers by schools in less than a decade.⁵⁵

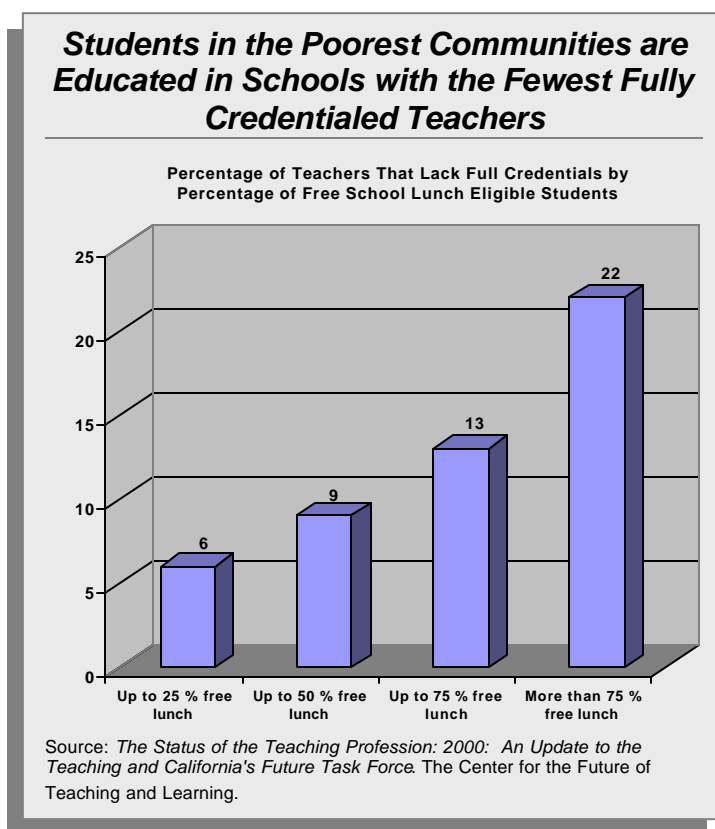
Disproportionate Distribution

This growth suggests that emergency-permit teachers are getting credentials at a slower pace than new teachers must be recruited to meet classroom needs. But not all schools share the burden of absorbing novice teachers into their workforce. Distribution studies show non-credentialed teachers are concentrated in lower wealth schools.⁵⁶

The Center for the Future of Teaching and Learning reports some affluent school districts have more than their fair share of credentialed teachers because they lure the best teachers from other schools rather than hire emergency-permit teachers.⁵⁷ In fact, state policy encourages this practice by requiring districts to at least attempt to fill all vacancies with credentialed teachers. Districts with the resources to offer better

salaries and working conditions attract more credentialed teachers. As a result, the districts with the poorest salaries and least attractive teaching environments end up hiring a disproportionate share of novice teachers.

A RAND study of the teacher labor market suggests that increased educational funding and the class size reduction initiative have given credentialed teachers more opportunities and reasons to migrate to more attractive schools, forcing less attractive schools to hire more emergency-permit teachers.⁵⁸



The net result of this trend is that dollars that should be targeted at high-need schools are being shifted to less needy schools.⁵⁹ Some analysts argue that the burden of employing non-credentialed teachers should be equalized among schools. But unions and other education experts argue many teachers would leave teaching rather than work in schools they find unattractive and that such a strategy would drive more credentialed teachers out of the workforce.

Workforce studies and the evidence presented to the Commission indicate that raising teacher compensation can help increase the number of credentialed teachers working in California's schools. Yet the State's compensation efforts have not been sensitive to regional labor market dynamics and have not addressed the imbalance in the distribution of

under-qualified teachers among schools. But more importantly, State compensation efforts have fallen short of providing the rewards needed to maximize student achievement.

Reward Desired Outcomes

Done right, raising compensation will attract better teachers and improve education outcomes, particularly in hard-to-staff schools. Higher salaries can help equalize the distribution of qualified teachers among schools and give all students better access to teachers with advanced training and knowledge. Labor market studies could provide the

information needed to set compensation at the right level to entice credentialed teachers into these schools.⁶⁰ Labor market studies could also provide school districts with insights into how to structure teacher salary adjustments, promotional opportunities and professional development to attract and retain the most effective teachers.

The State needs to pay careful attention to help low-performing schools, without adversely impacting the overall health of the teacher workforce. If shortages in trained teachers require the use of emergency-permit teachers, the State needs to make sure its policies do not result in concentrations of under-prepared teachers. Strengthening the overall quality of the teacher workforce by increasing the number of fully prepared teachers should be the State's overall objective.

One way to build a strong statewide teacher workforce is to create compensation incentives that reward continuous achievement of teaching excellence. Most teachers receive salary increases or promotions when milestones are met – becoming credentialed, seniority in the district, earning academic degrees or completing coursework. Rarely are teachers rewarded for the contribution they make to the educational success of their school. Some educational experts argued that emphasizing compensation policies that reward teachers for their contribution to achievement of desired educational outcomes would help all schools, especially the most needy ones.

The Milken Family Foundation, for example, has studied teacher workforce issues extensively and believes that many able teachers are discouraged from teaching because of poor compensation and promotional practices. The foundation encourages policies that reward teachers financially for continuously developing their abilities throughout their careers – from incentives for teachers to become fully credentialed to paying veteran teachers who take on mentoring responsibilities.⁶¹

Milken Family Foundation Teacher Advancement Program

- 1. Recognize Development** in teacher classification structures. Teacher compensation should reflect the ability and performance expected at each stage of teacher development.
- 2. Reward Continuous Progress** within each stage and in promoting teachers from one stage to the next.
- 3. Encourage Advancement** by rewarding completion of training, licensure, teaching performance, experience and teacher leadership.
- 4. Lift Compensation Caps** to encourage teachers to be master teachers and become mentors for novice teachers.

Source: Milken Family Foundation – TAP program, <http://www.mff.org>.

Experts at the foundation argue that the State should explore alternative compensation approaches such as the Teacher Advancement Program (TAP) they are piloting in some Arizona schools. TAP restructures the classifications along a university model. Promotion to the next classification (and higher salary) is based on performance. TAP is designed to improve outcomes in any school – low-performing or not.

Charter schools also have been incubators for innovation in designing pay systems to reward educational excellence. For example, the Vaughn Next Century Learning Center, a charter school with a high concentration of low-income and English learner students, rewards teachers for acquiring and applying subject knowledge and pedagogical skills to improve student achievement. The school has been able to encourage its emergency-permit teachers to become credentialed and consistently exceeds student performance growth goals on the API.⁶²

Performance also could be recognized with financial rewards for teachers who help raise student performance in the most challenging schools. Teachers who acquire and apply special skills and abilities to improve performance could earn "challenged school credentials" and receive financial rewards for their contribution to raising student achievement. The advantage of this approach is that it encourages the development of a cadre of special teachers with unique skills and abilities that make them particularly successful at inspiring the most challenged students to excel. Fiscal rewards could be tied to how much these teachers raise academic performance in schools with the highest concentrations of low-performing students. By recognizing and financially rewarding such teachers, the State creates an incentive for these teachers to request assignment to schools that need them most.

The State has created rewards to raise school performance. API data shows schools improving, but rewards are not scaled to the amount of improvement and do not recognize higher levels of educational difficulty that teachers overcome. The California Budget Project notes that half of the performance awards go to schools in the top 5 percentiles of the API. The analysis shows that if schools were rewarded based on how much they improved student scores, low-performing schools would receive larger awards.⁶³ The experience in performance awards suggests that investing in low-performing schools can produce improvement.

The mantra is simple: Teachers are attracted to schools that value good teachers. That value is demonstrated with appropriate pay and benefits.

But before the State can help schools craft compensation strategies, it needs to know how much and how compensation should be raised. Labor market studies can provide data for deciding how much. Pilot projects to develop innovative compensation strategies can provide answers about how to best target increases. But to have the most effect, compensation needs to be part of a complete package of changes to make teaching, particularly in hard-to-staff schools, more attractive.

The State raised the starting salary for credentialed teachers in part to encourage emergency-permit teachers to seek credentials. The State also

provides districts some financial assistance for enrolling emergency-permit teachers in credential preparation programs. But even more might be accomplished by giving districts the difference between what emergency-permit teachers earn and the starting salary of credential teachers, if the district agreed to use the funding to complete the training of unprepared teachers.

Compensation also could be used to encourage capable teachers to migrate to – instead of away from – low-performing schools. The State can assist districts by providing incentives that attract capable teachers to needy schools. Rather than "combat" pay, which rewards teachers regardless of their contribution to student achievement, the State should encourage high-performing educators to teach in low-performing schools.

For example, the State could explore creating a special credential for master teachers who teach in the most challenging schools and demonstrate through their commitment and ability special effectiveness in helping students excel. Financial rewards tied to the credential would only be paid when these teachers are working in a low-performing school.

Recommendation 3: The State should provide fiscal incentives to school districts to structure compensation to recognize high performance, to provide a career ladder for the best teachers and to compensate high-quality instructors for the value they bring to academically challenged schools. The Governor and Legislature should implement the following initiatives:

- ❑ ***Competitive Compensation.*** The State should conduct labor market studies to determine what level of increased compensation is needed to attract fully prepared teachers to schools. Any fiscal incentive that encourages districts to employ under-qualified teachers solely to avoid costs should be eliminated.
- ❑ ***Reward Performance.*** The State needs to encourage and help fund innovative teacher compensation strategies that reward teacher performance and eliminate salary caps that encourage veteran teachers to leave the classroom. The State should pilot alternative compensation structures such as those proposed by the Milken Family Foundation's Teacher Advancement Program and provide incentives for districts to embrace effective classification, promotion and merit-based pay systems that promote state education objectives.
- ❑ ***Challenging Schools Reward.*** As outlined in recommendation 2, special financial rewards should be targeted at teachers who successfully help schools raise student performance in the most challenging schools. Teachers who acquire and apply special skills and abilities to improve performance should be eligible for challenged

school credentials and receive financial rewards for raising student achievement in these schools.

Teaching Environment

Finding 4: Unattractive work environments discourage capable educators from teaching, particularly in hard-to-staff schools.

While compensation may attract able teachers, job satisfaction helps keep them in classrooms. Studies show that school environment has a significant impact on teaching satisfaction and consequently retention. Data from the National Center for Educational Statistics show that 16 percent of the teachers exit the profession because of job dissatisfaction or to pursue another career.⁶⁴ The National Center also reports that safety is an increasing factor that teachers cite in deciding to leave schools.⁶⁵

Poor facilities and unsafe working conditions add stress, health concerns and personal safety to the reasons why capable teachers leave hard-to-staff schools. The National Center for Education Statistics reports that workplace conditions have a stronger impact on teaching satisfaction than even compensation.⁶⁶ Among the factors that teachers report being most concerned about are safety and the educational atmosphere of schools.⁶⁷

"Teachers see a strong link between (school) interior design and a good learning environment, and most (89%) also believe interior design influences teacher retention..."

National Survey of Public School Teachers, Beth Schapiro & Associates

Particularly in hard-to-staff subject areas such as science and math, poor learning environments detract from the ability of schools to hire teachers. Approximately 57 percent of all science teachers polled in a national survey reported that "poor school image" factored into their decisions about where to teach. Gerald Wheeler, the executive director of the National Association of Science Teachers, confirms that "continuing job dissatisfaction among teachers poses a serious threat to efforts to raise student achievement. Qualified science teachers will always be in short supply unless schools and communities address science teachers' reasons for being dissatisfied in their careers."⁶⁸

Schools with the greatest success attracting and keeping high-quality teachers provide healthy, safe and stimulating teaching environments. In these schools, teachers feel safe and secure, they teach in comfortable classrooms, and are provided the equipment and technology needed to provide students a 21st century education. If housing and transportation are problems for teachers, schools work with government and civic organizations to make affordable housing, parking or public transportation more available and convenient to teachers.

But many schools are old, dingy and in need of substantial repairs. The Department of Education estimates that 60 percent of the classrooms in the state are over 25 years old, and to stave off overcrowding California needs to build seven new classrooms every day.⁶⁹ Nationwide, 22 percent of all public schools are overcrowded – with enrollments at least 5 percent above their designed capacity.⁷⁰ Accommodating class-size reduction efforts has exacerbated the problems in many schools, which collectively had to create 20,000 additional classrooms.⁷¹

State Funding for School Facilities

California voters have demonstrated overwhelming support for improving school facilities. In 1998, voters approved general obligation bonds totaling over \$9 billion dollars for educational facilities. Almost \$7 billion

specifically targeted at improving K-12 schools.⁷² Yet schools report that they need much more help to upgrade schools and to build the classrooms needed to accommodate additional students. The Department of Education estimates that schools will need more than \$19 billion for new construction, deferred maintenance or modernization over the next five years.⁷³

The State recognizes safe modern facilities are essential for learning. The Fiscal Crisis Management Assistance Team identifies neglected maintenance and unsafe facilities as a key indicator that a school district is in dire risk of failure.⁷⁴

To help local schools, the State provides matching state funding to build new and upgrade existing school facilities. State funding is allocated to schools by the State Allocation Board (SAB).

School Facility Funding Programs

School Facility Program (SFP) – Provides funding for construction and modernization of K-12 schools. New construction projects require a dollar for dollar district match. Modernization projects require a 20 percent district match.

Deferred Maintenance Program (DMP) – Provides funds on a dollar for dollar matching basis to fund major repairs or replacement costs of school buildings. The DMP covers repairs to plumbing, heating, air conditioning, electrical systems, roofing, painting, floors and other maintenance projects approved by the State Allocation Board.

Hardship Program – Allows for the State to fund up to 100 percent of the eligible costs, if the district meets hardship criteria.

State Relocatable Classroom Program (SRCP) – Helps schools with excessive enrollment growth pay for portable classrooms. The State has made approximately 500 classrooms available to schools.

Source: 1999-2000 OPSC/SAB Annual Report.

Local funding comes from a variety of sources including school construction bonds, Mello-Roos bonds and local developer fees.

Technical Assistance

In addition to providing funding, the State helps schools create high-quality learning environments by providing technical assistance and

publishing guidelines for facility planning. While schools have the responsibility for building and maintaining school facilities, the State must approve projects that are funded with state money.

Local Initiatives

To build a school in compliance with state standards, the Department of Education estimates schools need to spend an average of \$12.5 million for an elementary school, \$22.1 million for a middle school and \$52.1 million for a high school.⁷⁵

Schools are trying to do their part. Since 1986, school districts have passed over 420 school bond measures amounting to over \$17 billion.⁷⁶ Yet, particularly for schools serving high poverty communities, schools are hard pressed to come up with funds to match construction dollars. School financing experts note that a low wealth district must pass a higher tax rate levy in order to repay a bond of equal magnitude issued by a high wealth district.⁷⁷

The deferred maintenance hardship program offers school districts some relief. For example, the Office of Public School Construction reports that in fiscal year 1999-2000, 61 of the school districts it funded qualified for deferred maintenance hardship funding.⁷⁸ But the need for hardship exemptions far outstrips the availability of maintenance program funding, and school districts in economically distressed areas continue to have great difficulty finding money to renovate schools.

Since the demand for state school construction funding is greater than available funding, schools must move quickly if they hope to tap state funding. Having support from local government entities, business and civic groups is often critical to passing local bond initiatives or tapping other funding for new construction. Yet schools serving high poverty communities frequently lack the civic infrastructure or tax base to provide the match for state construction dollars.

Still, even in some of these communities many schools are finding innovative ways to improve and expand facilities. Some schools are partnering with civic and business organizations to improve school conditions. The Commission heard testimony from community-based organizations and businesses, such as Joint Ventures Silicon Valley and Hewlett Packard, that are working with low-performing schools in high-poverty areas to help schools attract and retain high-quality teachers.

The schools that have not yet addressed this challenge should be encouraged to do so as quickly as possible. One way the State could

help districts with workforce problems improve learning environments would be to require progress in this area as a condition for permission to hire emergency-permit teachers. Certainly, the State should help schools eliminate conditions that make schools unattractive to capable teachers. But schools also need to show they are working hard to be more attractive to capable teachers.

The State role should be to help schools get the resources and technical assistance they need to make hard-to-staff schools attractive to able teachers. While present efforts are helping, they appear not to be scaled big enough to match the challenge of providing quality school environments in schools. While schools should be held accountable for contributing the resources they have and especially for demonstrating leadership and community commitment to improving these schools, the State needs to make up the difference.

Housing and Transportation Issues

Teachers indicate that the most important factor influencing which school they work in is its proximity to their home.⁷⁹ Even in the case of otherwise attractive schools, a lack of affordable housing can mean long teacher commutes and increased difficulty for schools to attract and keep good teachers. For example, the median price for a home in San Francisco rose above \$375,000 in 1999. Meanwhile, starting teacher salaries were in the low \$30,000 range in San Francisco schools.⁸⁰ Without assistance, teachers working in this community and others like it – where housing prices outpace annual salaries by a factor of ten or more – have little hope of living and working in even the same city. For many, achieving the dream of home ownership and remaining a teacher means they must look for a teaching position in a community with more affordable housing.

When finding affordable housing is a problem, many schools work with local public and private agencies to find ways to provide quality housing close to their schools and affordable for teachers. For example, in Sacramento, San Francisco, Santa Clara, Los Angeles, Orange and San Bernardino counties, local housing agencies offer several teacher housing assistance programs. These include special programs designed to help teachers buy homes offered by major private sector lenders such as Bank of America, Wells Fargo and U.S. Bank. In addition, these agencies also link teachers with programs like the Department of Housing and Urban Development's *Teacher Next Door* that beginning in August 2001 will allow teachers to buy homes at a 50 percent discount.⁸¹

Likewise, the State has recognized, particularly in the case of low-performing schools, the importance of helping local communities address housing issues impacting teachers. The State enacted legislation (AB 2060) authored by Assemblyman Steinberg and sponsored by the State Treasurer, establishing the Extra Credit Teacher Home Purchase Program. Under this legislation, the California Debt Limit Allocation Committee provides 15% annual tax credits against mortgage interest payments or reduced interest loans to credentialed teachers and school-administrators serving low-performing schools. Participants must work for five years in schools ranked in the bottom 30 percent based on the most recent Academic Performance Index. Over a five-year period, the Treasurer estimates that the program will assist about 4,000 teachers and principals.

The State also has incorporated flexibility in the Teaching as a Priority (TAP) block grant program to allow schools to provide housing subsidies to teachers if it will help lower the school dependency on emergency-permit teachers.

San Jose Teacher Housing Effort

Ron Gonzales, San Jose's mayor, recognizes the importance of good teachers to his community. He also recognizes that when owning a home becomes unaffordable to teachers they move to other communities and other schools.

The mayor has put city resources to work helping to make home ownership a reality for good teachers in his town. The city created the Teacher Homebuyer Program that provides zero-interest down payment loan assistance of up to \$40,000 to teachers in San Jose schools. The city reports that more than 100 teachers have purchased a home under the program and another 100 have applications for loans pending.

While the State has made great strides toward addressing this issue, the Commission heard from schools and teacher representatives repeatedly that not enough has been done and housing and transportation continue to be problems that need attention. The evidence suggests that housing and transportation issues are particularly acute problems for urban schools and should be addressed in a targeted regional effort to improve educational outcomes. The State Superintendent's staff already has a significant role in improving school facilities. The State could augment this responsibility to include developing a comprehensive strategy for addressing teacher housing and transportation problems. The State could also draw upon the experience of schools and housing authority experts to help develop strategies to enable teachers to live near their schools.

Investing Wisely

Teachers testified adamantly that schools that create good teaching environments would attract and retain the best teachers. Schools that do a poor job will see qualified teachers migrate to schools offering fewer negatives and more rewards.

With over half of the schools in California over 25 years old and suffering signs of severe aging, it is appropriate that upgrading school facilities is a high priority. Yet just throwing money at problems rarely produces an acceptable cure. Wisely, the state has prescribed oversight and review responsibilities to the OPSC, CDE and the State Architect to ensure that state funding for school facilities is used appropriately.

Investing in quality classrooms and addressing the housing and transportation needs of teachers has the potential to significantly improve teacher job satisfaction and lower teacher attrition rates.

According to the Center for the Future of Teaching and Learning, success in reducing the number of emergency-permit teachers is tied to how successful schools are at improving conditions in classrooms.⁸² The Commission believes that particularly in the case of low-performing hard-to-staff schools the State can do more to ensure that teachers' concerns are factored into deciding where funding for facility improvements are targeted. Teachers represent a much larger on-going investment than school facilities. While improving the teaching environment in schools and addressing issues such as affordable housing and transportation will not eliminate all teacher attrition, attracting better teachers to hard-to-staff schools and encouraging them to remain teachers longer by increasing their job satisfaction level is a worthwhile investment of state resources.

Recommendation 4: The State should target additional resources at hard-to-staff schools to make them more attractive workplaces for credentialed teachers. The Governor and Legislature should implement the following initiatives:

- ❑ ***Teaching Environment Reviews.*** Schools that apply for emergency permits should be required to meet the following requirements:
 - ✓ Schools that do not meet API improvement goals and have a significant percentage of teachers on emergency permits or waivers should be assessed on factors critical to attracting and retaining high-quality teachers by a team of experts. These schools should be required to meet operational and facility standards established by the State.
 - ✓ Based on the assessment, schools with deficiencies should be required to correct factors that make them unattractive work environments.
 - ✓ In allocating facility funds, extra consideration should be given to low-performing schools that have developed plans for modernizing and maintaining schools that meet state operating standards.

- ❑ ***Affordable Housing & Transportation Planning.*** The State Superintendent for Public Instruction, working with districts, should prepare a plan for the most cost effective way that the State could provide the following types of assistance:
 - ✓ Help teachers overcome transportation barriers to employment in these schools.
 - ✓ Help teachers obtain affordable quality housing within reasonable commute distances.

Administrative Practices

Finding 5: Poor school administrative practices create a non-professional teaching environment that discourages capable teachers from working in many schools.

In addition to compensation and quality facilities, school administration has a huge impact on the ability of schools to attract and retain able teachers.

Teachers report that the more time they spend struggling with school bureaucracy, filling out meaningless paperwork, or doing social work, dealing with health issues and monitoring playgrounds the less time they have to be educators. Poorly administered schools burden teachers with bureaucracy and distract teachers from educating. Well-administered schools attract teachers by valuing participation in governance, allowing control over classroom approach, encouraging peer collaboration, supporting professional development, and maintaining positive labor relations.

First Impressions Count

The first impression that teachers get of a school is through the recruitment and hiring process. If a school's interview and hiring process is bureaucratic and cumbersome, or if employment decisions are delayed by red-tape and paperwork, the best teachers move on to better schools. Schools that ensure outreach and recruitment practices are streamlined and professional demonstrate they value teachers.

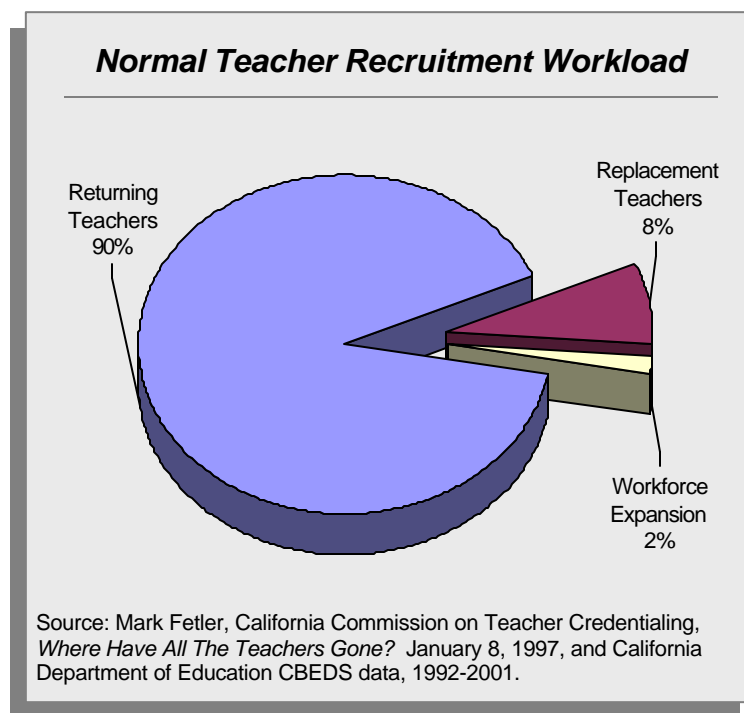
According to a study by CTC, approximately 8 percent of the existing workforce annually leaves teaching and must be replaced.⁸³ Normal enrollment growth and workload expansion also adds about a 2 percent statewide increase in teacher positions to be filled annually.⁸⁴ While precise data on hiring demand for new teachers are not available, an estimated 25,000 to 30,000 teachers are hired each year.⁸⁵

On the Role of Administrators

Another important factor in hiring and retaining quality teachers is training and supporting good leaders. This is especially true in urban schools that typically struggle with high turnover rates for teachers. When we equip our principals and vice principals to support their staffs, teachers are more likely to stay in these schools. We have begun grooming our own people to become principals through an administrative credential program we offer in partnership with CSU, Sacramento.

Dave Gordon, Superintendent, Elk Grove Unified School District.

In addition to the 24,000 newly credentialed teachers joining the workforce annually, California has a reserve pool of already trained teachers (retirees, unemployed teachers, and teachers working in other professions). Many experts say that enough trained teachers are



available to meet California's needs.⁸⁶ Stanford University professor Linda Darling-Hammond believes that the number of under-qualified teachers in California schools could be significantly reduced if schools did a better job of recruiting fully trained teachers.⁸⁷ Data compiled by the CTC suggest that schools are not doing a good job of tapping the pool of already trained teachers.

Recognizing that poor hiring processes add barriers to meeting workforce needs, the State has established programs to improve school recruitment practices. In 1997, the State launched CalTeach, an Internet site that is a

one-stop information, referral, and recruitment center at the state level to link teachers to needy schools.

The State also allocated \$9.4 million in the 2001 budget to create regional teacher recruitment centers intended to serve as clearinghouses for information about schools needing teachers and to provide expert assistance to local school recruitment efforts. The centers are directed to emphasize finding credentialed teachers for low-performing schools – especially those where 20 percent or more of the teacher staff are emergency-permit teachers.⁸⁸

But the State could do more. Particularly where schools request emergency permits or credential waivers, the State could require they adopt hiring practices that ensure able teachers are employed. Schools with similar teacher employment challenges that have demonstrated success could be the models for schools with poor outreach and recruitment practices. The Secretary for Education could be given the task of identifying best teacher recruitment practices and adopting protocols for schools to implement. Schools applying to the CTC for permission to use emergency permits or waivers could be required to demonstrate that they have implemented these protocols.

Managing Teacher Resources

The experience of the Vaughn Next Century Learning Center and other award winning schools provides strong evidence that high-quality school management helps attract and retain quality teachers. In these schools, capable administrators free teachers from unnecessary paperwork and red tape. They show that they value high-quality teaching by implementing effective human resources management practices that encourage the best teachers by validating their importance to the success of students.

In well-managed schools administrators find ways to recognize and reward the contribution of their teachers. In poorly administered schools, teachers are not recognized or supported. Many teachers must dig into their own pockets to pay for continuing education and credentialing costs. The California Teachers Association argues that one way the State could encourage more veteran teachers to teach longer would be to subsidize or waive these costs.⁸⁹

The State already has seen the value of effective administrative practices in regard to efforts to save schools from fiscal mismanagement. Working in conjunction with some of the best school administrators in the State, California has developed the Fiscal Crisis Management Assistance Team (FCMAT) to help school districts that become insolvent get back on solid fiscal ground by reforming their practices.

Recent legislation directs FCMAT to assess and report on personnel practices in districts with chronic teacher recruitment, hiring and retention problems. District practices are compared against best practices and legal requirements; deficiencies are noted and FCMAT provides technical assistance to implement corrections.⁹⁰

Predictors of Administrative Trouble

The State's Fiscal Crisis & Management Assistance Team (FCMAT) identifies several key characteristics of troubled schools:

- 1. Ineffective Leadership.** Governance by crisis, an exodus of staff and students, difficulty recruiting staff, micro-management, control by special interests, ineffective supervision, and litigation.
- 2. Ineffective Communication.** Staff unrest and morale issues, absence of communication in educational community, lack of interagency cooperation, and breakdown of systems.
- 3. Collapse of Infrastructure.** Unhealthful and unsafe facilities and sites, deferred maintenance neglected, low budget priority, citations ignored, and no long-range plan for facility maintenance.
- 4. Ineffective Management Information Systems.** Limited access to timely personnel, payroll, and budget control data and reports, inadequate attention to system life cycles, and inadequate communications systems.
- 5. Human Resource Crisis.** Burnout from extended workweeks, shortages of staff, teachers and support staff working out of assignment, students without teachers, administrators coping with daily crisis intervention, and inadequate staff development.

FCMAT notes that troubled school districts commonly are inattentive to categorical programs, have inadequate budget processes and position control, have substantial long-term debt commitments and have related problems regarding audit exceptions, bankruptcy, school privatization, loss of public support and inadequate community participation.

FCMAT webpage: www.fcmat.org.

FCMAT Certificated Personnel Assistance and Review Project

Mission: Review recruitment, hiring and retention practices of school districts with chronic workforce problems, make recommendations for improvement and provide technical assistance.

Eligibility & Priority: A district must have requested emergency-permit exemptions for 50 teachers or 20 percent of their teacher workforce – whichever is more – for three consecutive years. Priority is given to districts that are targeted under the Teacher Recruitment Initiative Program (TRIP), and districts with the greatest population of pupils in the lowest half of the API rankings.

Process: FCMAT reviews current teacher recruitment, selection and retention practices, compares these practices to legal requirements and industry standards, and provides the district with a written report of its findings and recommendations. FCMAT provides technical assistance when appropriate to help districts implement improvements.

Participation: FCMAT estimates that it could review 40 districts each year when the program is fully implemented. FCMAT is in the start up stage of the program and hopes to complete approximately a dozen assessments in the first year.

Source: Interview, Thomas Henry, executive director FCMAT and FCMAT's webpage: www.fcmat.org.

The State could expand this functionality to address personnel and school administrative practices that prevent schools from deploying capable teacher workforces and meeting student academic performance goals. FCMAT reviews focus on district personnel practices, but many hard-to-staff schools are in districts that do not meet the criteria that trigger FCMAT reviews. To address the needs of these schools help needs to be taken to the school level.

Drawing from the lessons learned by FCMAT, the State could leverage improvements in school practices by conducting administrative audits in hard-to-staff schools. Schools applying for emergency permit or credential waivers, that have not met performance goals, could be audited as a condition for approval. The Secretary for Education, working with FCMAT, could develop protocols for best administrative practices to measure schools against. Weaknesses in administrative practices could be identified and the State could provide technical assistance and funding to help schools put remedies into place. Not only would this help individual schools improve student performance, but it could help ensure State investments in teacher outreach, preparation and licensing bear bigger dividends and are not frustrated due to poor administrative practices at the local level.

The State could also link efforts to improve academic outcomes in low-performing schools with efforts to improve the teacher workforce by making adoption of these protocols part of its Immediate Intervention Underperforming School Program.

The II/USP is targeted at schools performing below the 50th percentile on the API. Under this program, schools use state approved "external evaluators" with expertise in curriculum, fiscal, personnel and facility management to develop and implement reforms to improve performance. The program is voluntary, but funding is offered to encourage participation. Schools receive a \$50,000 planning grant plus up to \$200

a year per student for implementation efforts. When fully implemented approximately 1,290 schools are expected to participate in the program.

By enacting legislation to hold schools accountable for student performance, the State has created an obligation to help schools overcome obstacles that retard student achievement. Just as a strong teacher workforce is the most significant asset a school can have to ensure high academic achievement, poor administrative practices are frequently at the root of poor teacher recruitment and retention. The State should do more than mandate performance improvement, it needs to help schools find the right solutions and put them in place. The best schools can help show the way.

Strong Relationships Make Strong Schools

Among California's successful models is the Santa Monica-Malibu School District, which does not have all of the challenges of inner-city schools, but has worked hard to develop a strong workforce of teachers. Many of its lessons are transferable.

The district, for instance, has developed strong relationships with universities that train teachers, including UCLA, USC, Pepperdine, Loyola Marymount, and CSU Northridge. Some 60 percent of the trainees who work in district schools are ultimately hired as teachers, and the district believes the experience makes new recruits better equipped to succeed in the classroom.

Superintendent Neil Schmidt credits the district's success to three factors:

Strong School Leadership -- The school board, superintendent, principals, and community all agree on strategy for pursuing academic success.

Healthy Teacher Group Dynamic -- Teachers are supported and encouraged to communicate among themselves. The district has generally good labor relations and the district encourages professional development.

Support for Teachers by Parents -- The community is supportive of the schools and teachers. The education of students is valued by parents and is reflected in the investment parents make to ensure children are well behaved, complete homework assignments and on time for school.

Superintendent Schmidt had several recommendations for changes in state policy that would help schools attract and retain a stronger teacher workforce.

- ☐ The State should invest in quality preschool programs to prepare children and parents for their school experience.
- ☐ The State should limit the ability of districts to bargain away personnel management discretion, which inhibits their ability to weed out poor performing teachers and reward the best teachers.
- ☐ The State should continue to lower class sizes at other grades, improving learning and making teaching more rewarding.
- ☐ Teachers with special training and skills should be paid more.
- ☐ Districts should be encouraged to create more charter schools, particularly because of their ability to set up site-based personnel practices.
- ☐ Tie teacher-training dollars to teacher slots. If districts were given the CSU and scholarship money they could hire the teacher trainees and then contract with universities that provide the best training.

Students Ready to Learn

Teachers say they want to teach in schools where students are healthy, rested and ready to learn. But hard-to-staff schools are frequently located in low-income communities where students have the greatest unmet social, medical and behavioral needs. Too often the stress of being educator, peace maker, healer and social worker drives good teachers out of schools. With appropriate resources for health and social services, schools can relieve teachers from much of this burden and make the schools more attractive places to work. The State can help by providing resources and technical assistance to create services to address the unmet needs of students in low-performing schools.

The California Children and Families First Commission (CCFFC) has made a \$225 million commitment to just such an effort. The CCFFC, in conjunction with the Governor, has launched the School Readiness initiative to address problems in communities that prevent children from learning. The Governor has appointed a task force to work with CCFFC to create centers and programs providing services in communities served by schools in the bottom of the API. Through this program the State intends to strengthen the delivery of quality early child care, education, health, social services, and parenting support services that ensure children are rested, healthy, and ready to learn at school. This is an important step in the right direction, but the State needs to do more.

The State could establish a linkage between school readiness services and programs targeted at low-performing schools. For example, as part of the II/USP effort the State could encourage low-performing schools to develop recreational, health, and social services necessary to ensure students are healthy and ready to learn each day. And the State might examine ways to target childcare funding to offer teachers low-cost school-based childcare while providing developmentally rich preschool programs to jumpstart children for K-12 success. These kinds of initiatives would make low-performing schools more attractive to teachers who have the skills needed to raise academic performance.

Leadership and Professional Teaching Environments

The best way to find workable solutions to teacher workforce problems is to ask schools with the biggest challenges and the best academic performance how they succeed. High-performance schools serving high poverty communities (HP2) report that the following elements are needed for success.⁹¹

- ✓ **School leadership is paramount.** School principals and district leaders emphasized the importance of effective administrative leadership and the necessity to submerge bureaucratic considerations to the needs of students, faculty and families.
- ✓ **Principals must be held accountable for performance, but free to administer.** School administrators need the ability to hire staff, set a budget and implement a performance driven instructional program. Most of these schools reported that their districts made a proactive commitment to supporting their efforts. Principals noted that it was important to be able to hire high-quality teachers and replace teachers who did not perform.
- ✓ **Educational team building is important.** Promoting shared leadership among administrators, faculty and parents helps schools be successful. In these schools, teaching faculty were regarded as an important source of instructional leadership and decision making in the school. Opportunities were provided for new teachers to learn from veteran teachers; staff were encouraged and given the freedom to devise solutions to instructional programs. In most cases, teachers were actively involved in the development of school standards and benchmarks.
- ✓ **Teachers need to be supported.** These schools used BTSA and PAR programs to support, mentor and assist teachers in their schools. Teachers were engaged in extensive individual and group efforts to bring new learning into the school – continuous improvement was a primary goal. Collaboration among staff was crucial to promoting shared school goals and professional development. All schools reported that they regarded professional development during the regular school day as a priority.
- ✓ **Freeing schools to be innovative is key.** Regardless of the size of their budgets, principals reported that they found ways to use innovation and flexibility to provide services to students and teachers. These schools refused to offer or except excuses for poor learning performance. State, federal, even local business and civic sources were tapped to support programs aimed at improving performance. One school established extensive links to prestigious medical institutions to further its mission as a magnet for talented students interested in medical careers.
- ✓ **Addressing student needs is a foundation for school success.** These schools served communities where most students are below the poverty level and where meeting the needs of English-language learners posed a significant challenge. The response of these schools was for principals, teachers and parents to continuously seek educational solutions that worked for students. In one school with a large Mexican-American community, many students spend time away

from school at Christmas visiting family in Mexico. The school responded by rearranging the school year to allow a longer Christmas break. This decreased the amount of missed instruction and helped students keep up with peers. The schools also arranged independent study coursework for students that they could complete while on break.

Creating a high-quality school workplace can fuel student achievement and make teaching a more rewarding career. Ensuring schools have strong management is critical and should be a higher public policy priority. Some schools are already making this happen, as demonstrated by the experience of successful HP2 schools. But the State can encourage more schools along this path by emphasizing the importance of school management and the need to create professional work environments for teachers.

Recommendation 5: The State should provide funding to improve school administration and to promote a professional teaching environment. The Governor and Legislature should implement the following initiatives:

- ❑ ***Hiring Practices.*** Schools that apply for emergency permits should be required to adopt a streamlined hiring process that ensures easy access by qualified teachers to school employment.
- ❑ ***School Performance Audit.*** A team of the best administrators should audit the administrative processes of low-performing schools employing teachers on emergency permits. Weaknesses in management practices or barriers defined in labor agreements should be identified and schools required to correct deficiencies within a designated time. These assessments should ensure schools:
 - ✓ Have high-quality human resource management practices.
 - ✓ Adopt effective teacher workforce improvement strategies.
 - ✓ Treat teachers as professionals and respect their participation in school governance.
 - ✓ Provide open high-quality labor-management environments.
- ❑ ***Improve School Operations.*** More funding should be provided to hard-to-staff schools that improve academic performance by:
 - ✓ Expanding funding for collaborative teaching that links universities with the classroom.
 - ✓ Eliminating or waiving continuing education and credentialing costs for capable teachers committed to teaching in hard-to-staff schools.

- ✓ Ensuring teachers have adequate and easy access to all necessary teaching supplies and equipment.
- ✓ Increasing rewards for teachers making extra efforts to participate in school tutorial and study hall programs before and after school.
- ✓ Funding professional development activities for principals and school administrative staff that raises their administrative skills.
- ✓ Expanding non-teaching staffing to free teachers from non-instruction-related activities.
- ✓ Increasing non-teacher resources targeted at delivering recreational, health, and other social services necessary to strengthen the role of schools as community centers and ensuring that students are healthy and ready to learn each day. Whenever child care services are provided through school facilities, schools should be encouraged to provide space for the children of teachers.

Workforce Management

Finding 6: Teacher workforce initiatives are fragmented and misaligned. The State has not put in place adequate mechanisms to evaluate its teacher workforce investments. The teacher workforce represents a tremendous public asset that should be carefully managed to benefit all students.

A significant portion of the \$45 billion the State allocates to local schools each year pays for the teachers in the classroom.⁹² Millions more are spent to recruit, train and license those teachers. Yet for all that it spends on teachers, the State has done little to align its workforce-related programs to ensure the best outcomes are being achieved.

Even more disturbing, little effort is being made to evaluate rigorously and comprehensively the effectiveness of recent initiatives to improve and expand the workforce. As a result, the State cannot determine which efforts are efficiently helping to strengthen the workforce, which are not scaled or managed properly, or which are simply ineffective.

"The growing demand for well-qualified teachers, combined with the system's current inability to supply them to the right places with the right specialties, is a challenge that threatens to overwhelm the best intentions of policymakers."

The Center for the Future of Teaching and Learning

The State has assigned responsibility for developing the workforce of teachers to a variety of agencies.

The State's public universities train teachers. The Commission on Teacher Credentialing accredits those training programs and administers the licensing of individual teachers. The Department of Education administers a variety of programs intended to help all schools, and particularly those struggling to keep good teachers in every classroom. Some county offices of education have been tapped to help in recruiting and placing teachers. Other state departments whose core mission is not related to education have been tapped to help teachers pay for homes or to help school districts develop and maintain safe learning environments.

Many schools have difficulty knowing which programs they can tap or who to contact. Teachers in training vent frustration with the complexity of the process. And policy-makers must make decisions without solid analysis of the problems, or sound evaluation of experimental solutions.

And even the different agencies themselves – aware of gaps or shortcomings in the shared effort to prepare and employ high-quality teachers – are slow to develop systemwide improvements. The State is beginning to align the requirements for preparing and credentialing teachers, synchronizing the curriculum for teachers with the curriculum for pupils. But that is only one area where coordination could improve educational results.

Without Knowledge or Evaluation

As described in the Background, California's approach for preparing a quality workforce of teachers reflects nationwide trends that necessarily involve many different public and private partners. When California identified a critical shortage of qualified teachers as a central impediment to educational progress, most of those entities were considered part of the solution. Policy-makers, however, had limited information and even less reliable analysis of what limited the workforce development process, or proven strategies for resolving those problems.

Rather, policy-makers out of necessity had to rely on the information that was available, and the wisdom and experience of those in the educational system. The Commission's advisory committee of stakeholders and educational experts candidly conceded that many of the initiatives launched in recent years were based on anecdotes and political judgments rather than system analysis. While policy-makers may have felt an urgency to act, and did so on the best information available at the time, there is no legitimate reason for not gathering information and evaluating programs to support downstream decisions regarding these initiatives.

Uncoordinated Data Collection

California has both gaps in data and gaps in its knowledge. The data gaps can be filled by identifying what information is needed and devising a way to collect it. The knowledge gaps occur where California has not put together existing data and provided the analysis that transforms data into knowledge.

The State's own educational experts recognize the critical need for accurate workforce information. The CTC notes:

An evaluation of teacher supply and demand should include estimates of the number of teachers needed, along with the capacity of primary sources to meet the demand. Ideally, a flow analysis would track individuals as they make their way through postsecondary education or the workplace into and out of public school teaching. Given that such tracking systems do not exist in California or many other states, other sources of data are used to construct indicators which can be used inferentially. Using indicators to make inferences may [be] less satisfactory than using tracking systems. However, an indicator based analysis is superior to uninformed guess work.⁹³

But in some areas, where information could be developed, policy-makers still rely on guesswork. The State already collects much of the data needed to understand the teacher labor market. But the data is collected by different agencies and cannot be compiled in ways that are useful to management. SRI International recommends the State adopt a common teacher data identifier that would allow teacher-related databases to be linked and meaningful workforce reports to be compiled.⁹⁴

The State already has recognized the need to improve student and school information. The Department of Education is working with schools and the Fiscal Crisis and Management Assistance Team to develop a student data system that will allow schools to share information electronically about students and school personnel. Similarly, the State could use teacher-related databases to accurately monitor the dynamics of the teacher workforce.

In the past, not having accurate data on teachers has led to false conclusions about which teacher initiative should be a priority. For example, poor workforce information resulted in the State first trying to fix the teacher shortage by just increasing the supply of teachers. Policy-makers only later realized it needed to adjust its efforts to attract skilled instructors to the schools with the greatest academic challenges, and often the least prepared teachers.⁹⁵

Sharing School Data Electronically

The California School Information Services (CSIS) program is a consortium of local education agencies developing a common way to electronically share information about students and school personnel.

As an off-shoot of this initiative the Administration proposes to have the Fiscal Crisis and Management Assistance Team (FCMAT) implement a Student Identifiers Pilot Project. The pilot project will include districts currently participating in the CSIS program as well as districts that are not. The purpose of the project is to establish student identifiers and a longitudinal database.

Source:

<http://www.cde.ca.gov/demographics/csis/csis.html>.

Minimal Evaluation

The State also lacks a rigorous evaluation mechanism to assess the effectiveness of workforce initiatives. The agencies that administer these initiatives do not have the direction or resources to evaluate programs. In many cases, enacting statutes do not require evaluations or funding has not been provided to pay for assessments.⁹⁶

Moreover, there is no effort to assess how the initiatives are working together to improve the workforce. Two, three or four years from now policy-makers will not know how many more individuals are teaching as a result of these programs, at what cost, and which of these programs should be sustained to continuously improve the workforce.

The table on the following page lists the major initiatives, and indicates whether any evaluation of any kind is required by law.

Evaluation Requirements

Program	Evaluation Required	Evaluation Not Required
Alternative Certification Expansion. Increases state grants districts can spend for alternative certification to \$2,500 per intern.		✓
Assumption Program of Loans for Education (APLE). A loan assumption program to reward teachers that work in low-performing schools, with emergency permit teachers, serving low-income students.	✓	
Beginning Teacher Support and Assessment Program. Provides support to teachers during their first two years in the classroom.	✓	
Cal Grant T. Teachers in preparation programs receive up to \$8,000 in loan forgiveness for teaching in low-performing schools.	✓	
Governor's Teaching Fellowships. Graduate students receive fellowships for teaching 4 years in low-performing schools.		✓*
National Board Certification Program. NBC teachers receive one-time \$10,000 bonus and \$20,000 merit awards if they teach 4 years in low-performing schools.		✓
Out-of-State Teacher Credentialing. Requires CTC to issue new standards and procedures for credentialing out-of-state teachers and to compare requirements in other states to California's.		✓
Paraprofessional Teacher Training Program. Doubles the number of local education agencies that can participate in the California School Paraprofessional Teacher Training Program.	✓	
Personnel Assessment. Directs FCMAT to assess personnel practices in districts with chronic emergency permit problems.		✓*
Returning Retired Teachers. Exempts newly retired teachers from pension reductions for teaching or mentoring new teachers.		✓
Teaching As a Priority (TAP). Provides block grants to attract credentialed teachers to work in low-performing schools.	✓	
Teacher Recruitment Initiative Program (TRIP). Creates six regional recruiting centers to help staff low-performing schools.	✓	
Teacher Retirement Supplement. Creates tax-deferred accounts that provide lump-sum payments and annuities to retiring teachers.		✓*
Teacher Salary. Funding to districts to raise starting salaries for credentialed teachers to a minimum salary of \$34,000 annually.		✓
Teacher Tax Credit. A nonrefundable tax credit for teachers based on their years of experience.		✓

*Data reports are required.

But even when the statute provides for an evaluation, the public or policy-makers may not find out whether a program accomplished its goal. For example, the State has committed hundreds of million of dollars to the Teachers as a Priority Block Grant Program. But the Department of Education, which administers the program, is not required to submit a report back to policy-makers evaluating the program until 2004. Moreover, because funding has not been provided, the “evaluation” will describe who received funds, but will not include a comprehensive analysis of the program’s effectiveness.

Likewise, the State provides over \$55 million each year to raise starting salaries for credentialed teachers. The purpose of the initiative is to encourage schools to hire credentialed teachers and diminish the use of emergency permits. Yet there is no evaluation to determine if fewer emergency teachers are being hired because of this funding or how high entry level salaries might need to be raised in order to ensure all new teachers are credentialed.

Education officials said these examples are indicative of the latest generation of workforce initiatives: Without detailed assessments of workforce issues, policy-makers enacted a range of reforms that experts believe will result in higher quality teaching. But as it stands, policy-makers will not find out which of these initiatives worked and which did not. In addition, there are no plans for an overall assessment of how the various programs have worked together to fill classrooms with prepared instructors.

Virtually all of the agencies involved believe that they are making progress, yet assert that in most cases it is too early to expect hard evidence to gauge that progress. But time alone will not provide answers if data is not being collected. It will be especially difficult to determine which efforts contributed to student learning.

If these initiatives had been crafted based on detailed analysis of the workforce and proven strategies for improving quality, the need for comprehensive evaluations would be less. But at some point, policy-makers will need to determine if these expenditures – in loans, grants, tax credits and bonuses – are buying Californians better schools.

Ensuring Teacher Workforce Goals Are Met

The State’s teachers represent an immensely important public asset that is not managed effectively to produce the best public outcomes. Teachers are not born. They are professionals who must be recruited, trained, licensed and supported. Teaching is a specialized skill that

requires huge public investments in college and university preparation, licensing and school-based support. By necessity many public agencies are involved, but that doesn't mean their actions must be uncoordinated, independent and uninformed.

Other states have recognized the value of coordinating workforce initiatives in critical labor pools such as teachers. In Wisconsin, the Governor established a cabinet-level position to coordinate strategic workforce initiatives and advise policy-makers on needed policy changes. States like Wisconsin recognize that their economies will be challenged as nationwide 76 million retiring baby-boomers are replaced by 66 million echo-boomers. This will require public employers – especially schools – to proactively manage their workforce to ensure an adequate supply in such critical professions as teaching.⁹⁷

The State needs a single administrator assigned the task of aligning teacher workforce initiatives and providing policy-makers with the analysis and recommendations for improving effectiveness. The Secretary for Education was created to advise the Governor on educational policy issues and has experts to support those efforts. The secretary could be given the specific task of overseeing teacher workforce issues and publicly reporting on their effectiveness.

No single entity or individual at the State has the authority to set the course for education reform, carry it out, and alter its course when something goes wrong.

**PACE, Crucial Issues in California Education
2000**

In its assessment of the educational challenges facing California, PACE, the UC Berkeley think tank, notes that the fragmentation of state initiatives and the lack of a single authority inhibits the State's ability to efficiently address education problems. PACE reports that educators routinely call for strong leadership from the Governor.⁹⁸ As the Governor's

education advisor, the secretary is well placed to provide that leadership on a daily basis by assessing how well the State's initiatives are working. Specifically, the secretary could:

- **Assess teacher preparation initiatives.** The secretary could monitor efforts by CTC, the universities and others to align preparation and credential requirements to ensure that talented candidates are adequately prepared and efficiently licensed.
- **Assess fiscal incentives.** The State is spending considerable sums to attract and retain teachers in the classroom. The secretary could determine if these programs are scaled properly, and which ones are most effective at bringing talented teachers into challenging schools. The secretary also could assess these efforts for unintended

consequences that could be compromising efforts to advance learning throughout the state.

- ***Develop workforce information.*** The secretary also could ensure accurate and useful information is compiled and reported to policy-makers. Policy-makers would be better apprised of how well workforce objectives are being met, weaknesses that need attention, and potential improvements that could be made.

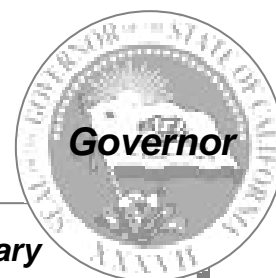
Change is always a challenge that requires leadership. To implement the kinds of changes needed to effectively address the teacher workforce problem the State needs to recognize the teacher workforce as the multi-billion dollar asset that it is, and give the Secretary for Education responsibility for ensuring effective management of this asset.

The graphic on the following page shows the Governor's relationship with the various agencies that affect California's teacher workforce.

Many Agencies, One Goal

Numerous agencies are involved in the preparation, certification and deployment of California's teacher workforce.

To bring cohesion to these efforts, the Governor could rely on the Secretary for Education to provide daily leadership.



Office of the Secretary for Education

The Secretary for Education, appointed by the Governor, is responsible for advising the Governor on teacher workforce issues.

Teacher Preparation

Board of Governors of the California Community Colleges

Governance: 16 members, all appointed by the Governor.

- ❑ Sets systemwide policy.
- ❑ Provides guidance for the 107 colleges, which are increasingly playing a direct role in preparing teachers.

California State University Trustees

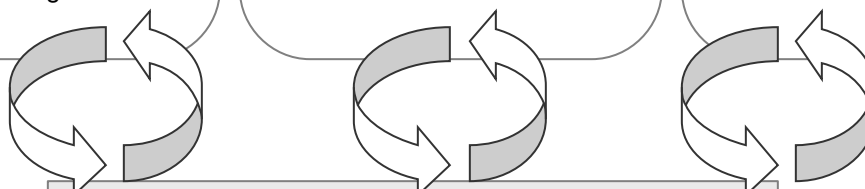
Governance: 25 members, 19 appointed by the Governor.

- ❑ Prepares about 15,000 new teachers yearly.
- ❑ Provides continuing education opportunities for existing teachers.

University of California Regents

Governance: 26 members, 18 appointed by the Governor.

- ❑ Prepares about 900 new teachers yearly.
- ❑ Provides continuing education opportunities for existing teachers.



Teacher Certification

Commission on Teacher Credentialing

Governance: 19 members, 14 appointed by the Governor.

- ❑ Accredits teacher preparation programs.
- ❑ Certifies teachers recommended by preparation programs.
- ❑ Administers school-based internship programs.

Teacher Deployment

Board of Education

Governance: 11 member board appointed by the Governor.

- ❑ Establishes statewide educational policy for K-12 schools.

Superintendent of Public Instruction

The State Superintendent is an elected official who serves as the director of the Department of Education and executes the policies adopted by the Board of Education.

Department of Education

- ❑ Assists educators, school districts, county offices of education, and parents to develop students' potential.

Recommendation 6: The Secretary for Education should be given the resources and the responsibility to align state teacher workforce initiatives with the needs of schools and ensure the workforce is managed as a valuable public asset. Specifically, the secretary should be directed to:

- ❑ ***Coordinate State Efforts.*** The Secretary for Education should be given the responsibility and the political capital to ensure that educational agencies are aligning their efforts to improve California's teacher workforce.
- ❑ ***Gather Accurate Data.*** The secretary should use a unique teacher identifier to efficiently collect and merge data collected by teacher preparation programs, state agencies and schools. The secretary should make teacher workforce information available to educators, policy-makers and the public.
- ❑ ***Assess Initiatives.*** The secretary should develop clear metrics to measure the number of teachers being trained, where they are employed, and how long they stay in the workforce. The secretary should evaluate workforce initiatives and recommend improvements to the Governor, the Legislature and other policy-makers.

Conclusion

The best public policies do more than just address immediate challenges – they convert liabilities into assets. In the 1960s, visionary leaders established a system of higher education that fueled a technological revolution and made California's economy the envy of the world. California is now trying to do the same for K-12 education.

In the course of this study the Commission was impressed by the high-level of commitment demonstrated by state officials toward improving student performance. California lawmakers clearly understand that a high-quality education starts with a talented, knowledgeable, committed teacher in every classroom. The Commission applauds the State's leaders for their diligent efforts to improve the quality of California's teacher workforce.

But more remains to be done. This study outlines steps policy-makers should explore to ensure that every student has a quality teacher. In assessing those next steps, policy-makers should keep in mind some guiding principals:

- ✓ **Recruit the Best.** The most talented minds must be encouraged to become career educators in California's K-12 schools. To guarantee the best teachers are delivered to schools, the State should ensure that applicants are screened early for the aptitude and commitment needed for teaching. The State also needs good labor-market data to know how the next dollar can be used to most effectively attract talented individuals to teaching – is it recruitment, salaries, retirement benefits, training, school administration or facilities. These decisions should be based on research that shows where the biggest gains can be made.
- ✓ **Align Preparation to Schools.** The State needs a broad-based approach to teacher preparation that increases the supply of high-quality teachers available to schools. Public and private colleges in California can meet some of the need, but expanding alternative credential programs and increasing efforts to recruit teachers from other states and countries is needed as well. The State also needs its own teacher academy to set the standard for excellence that all other programs are measured against. But more than anything else, the preparation provided to novice teachers should be driven by what classroom experience demonstrates to be skills and methods that yield the best academic success.

- ✓ **Base Credentials on Performance.** Credentialing must weed out the worst teachers and minimize burdens on the best. Credentialing should be linked to performance rather than preparation. And a credential needs to be a reliable indicator that a teacher is ready and equipped with the skills needed for teaching success.
- ✓ **Reward Quality Teaching.** Teachers say working in a dynamic teaching environment is as important as compensation and professional recognition. California schools should make sure teachers receive enough of all three. Those schools that are surmounting the biggest educational challenges virtually always have a capable principal at the helm. Achieving the State's educational goals will depend on making sure every school has a top notch principal and every teacher has the resources and support needed to teach.
- ✓ **Equalize Teacher Distribution.** Some schools have high concentrations of master teachers while others have few. Master teachers can provide valuable guidance to novices and are critical to achieving the best education outcomes for students. But state policy requiring schools to hire credentialed teachers first discourages the equal distribution of uncredentialed teachers and master teachers among all schools. All schools should be incubators for training and supporting novice teachers to become the next generation of master educators.
- ✓ **Manage the Workforce Strategically.** The State should treat its teacher workforce as a valuable asset, to be nurtured and cultivated to produce the best public outcomes. Policy-makers should empower the Secretary for Education to align state programs, compile workforce data and recommend ways to improve programs and policies needed to achieve this objective.

Ensuring every student has a capable teacher is a huge task. But, the Commission sees tremendous opportunities to overcome entrenched educational obstacles and advance the academic success of California's students.

Change demands much from leaders. One of the greatest challenges for educational leaders is to ensure a skilled teacher is in every classroom. Like the dividends from past investments in education, carefully managed investment in the teacher workforce has the potential to brighten the future of all Californians.

Appendices & Notes

✓ *Public Hearing Witnesses*

✓ *Advisory Committee*

✓ *Information Sources and Organizations*

✓ *Notes*

Appendix A

Little Hoover Commission Public Hearing Witnesses

Witnesses Appearing at Little Hoover Commission Teacher Workforce Hearing on November 16, 2000

Linda Bond, Director,
Governmental Relations
California Commission on Teacher
Credentialing

Kirk Brown, Teacher
Tracy Joint Union High School

Sandy Dean, Teacher
Shepherd Elementary School, Hayward

The Honorable Delaine Eastin
State Superintendent of Public Instruction
California Department of Education

Linda Fisher, Principal
Naranca Elementary School, El Cajon

Margaret Fortune
Assistant Secretary for Special Projects
Office of the Secretary for Education

Harvey Hunt, Executive Co-director
The Center for the Future of Teaching and
Learning

Mary Vixie Sandy, Director
Professional Services Division
California Commission on Teacher
Credentialing

David S. Spence
Executive Vice Chancellor and Chief
Academic Officer
California State University

Shereene Wilkerson, Director
Planning and Evaluation
Vacaville Unified School District

Witnesses Appearing at Little Hoover Commission Teacher Workforce Hearing on January 25, 2001

Harold Boger, Teacher
Crenshaw High School, Los Angeles

Elizabeth Danielson, Teacher
Courtyard Private School, Sacramento

Stan Hitomi, Teacher
Monte Vista High School, Danville

David A. Lebow
Member, Board of Directors
California Teachers Association

Catherine Lipe, Manager
K-14 Education Programs
Hewlett-Packard Company

Elaine C. Johnson
Assistant to the President
California Federation of Teachers

Michael Kass, Director
Teacher Quality Collaboratory
Joint Venture: Silicon Valley Network

Nancy L. Markowitz, Director
Triple "L" Collaborative
San Jose State University

Barbara Service, Principal
Oak Grove Elementary School District
San Jose

Lewis C. Solmon
Senior Vice President and Senior Scholar
Milken Family Foundation

Charlie Watters
Principal and Executive Director
Courtyard Private School, Sacramento

***Witnesses Appearing at Little Hoover Commission
Teacher Workforce Hearing on February 21, 2001***

Carol A. Bartell, Dean
School of Education
California Lutheran University

Nancy Ichinaga, retired Principal
Bennett-Kew Elementary School
Member, State Board of Education

Jonathan Brown, President
Association of Independent Colleges
& Universities

Kerry Mazzoni
Secretary for Education
State of California

Yvonne Chan, Principal
Vaughn Next Century Learning Center

Denise Patton, Principal
San Jose – Edison Academy

David W. Gordon, Superintendent
Elk Grove Unified School District

Marie G. Schrup, Dean
National University School of Education

Appendix B

Little Hoover Commission Teacher Workforce Advisory Committee

The following people served on the Teacher Workforce Advisory Committee. Under the Little Hoover Commission's process, advisory committee members provide expertise and information but do not vote or comment on the final product. The list below reflects the titles and positions of committee members at the time of the advisory committee meetings in 2000 and 2001.

Theresa Aguillon, Teacher
Courtyard Private School

Linda Fisher, Principal
Naranca Elementary School

Nancy Anton, Consultant
Senate Education Committee

Cassandra M. Guarino
Associate Economist, Education Unit
RAND

Linda Bond, Director
Governmental Relations
California Commission on Teacher
Credentialing

Murray Haberman
California Postsecondary Education
Commission

Nancy Brownell, Director
Institute for Education Reform

Tina Hester, Legislative Advocate
Delta Kappa Gamma Society

Ken Burt
Liaison Program Coordinator
California Teachers Association

Kelly Horner, Assistant Executive Director
Negotiations and Organizational
Development Department
California Teachers Association

José Colon, Teacher
Representative and Member
California Federation of Teachers

Lisa Horwitch, Consultant
Senate Education Committee

Bernie Davitto, Executive Director
Alliance for Education Solutions

Monica Isaac
Courtyard Private School

Patricia L. de Cos
Sr. Research Policy Specialist
California Research Bureau

Michael Kass, Director
Teacher Quality Collaboratory
Joint Venture: Silicon Valley Network

Marian Eaton, Research Scientist
American Institutes for Research

Erica Martínez, Assistant to the Speaker
Office of the Speaker of the Assembly

Mona Field, Faculty Adviser
Teaching/Reading Partnership
Development
Representing: Community College League of
California
Glendale Community College

Joan McRobbie, California Liaison
WestEd

Neel Ishwar (Bubba) Murarka
Student Trustee
California State University

Ron Myren, Teacher
California Teachers Association

Tom Rose, Consultant
Professional Development Division
CA Department of Education

Susan P. Samarge
Acting Assistant Principal
Will Rogers Learning Community

Mary Vixie Sandy, Director
Professional Services Division
California Commission on Teacher
Credentialing

Aimee Scribner, Consultant
Assembly Education Committee

Rick Simpson
Office of the Speaker of the Assembly

Karen Stapf Walters, Legislative Advocate
Association of California School
Administrators

Sue Stickel, Assistant Superintendent
Curriculum/Professional Learning
Elk Grove Unified School District

Bernice A. Stone, Ed.D., Professor
California State University, Fresno

Dr. Jim Sweeney, Superintendent
Sacramento City Unified School District

Dr. Sam W. Swofford, Executive Director
California Commission on Teacher
Credentialing

Bill Vasey, Director
Professional Development and Curriculum
Support
California Department of Education

Sal Villasenor, Senior Legislative Advocate
Government Relations Office
California School Boards Association

Charlie Watters
Principal and Executive Director
Courtyard Private School, Sacramento

Carolyn Wertz, Director
Human Resources
Baldwin Park Unified School District

Dr. William C. Wilson
Assistant Vice Chancellor
Academic Affairs/Teacher Education
Chancellor's Office
California State University

Sher Wrahunt, Coordinator
California Community Colleges
Chancellor's Office

JoAnn Yee, Executive Director
Association of California Urban School
Districts

Appendix C

Teacher Workforce Information Resources

The following web sites can provide useful information, data and resources pertaining to California's teacher workforce.

American Federation of Teachers

<http://www.aft.org/>

Association of Independent California Colleges and Universities

<http://www.aiccu.edu/>

Board of Governors of the California Community Colleges

<http://www.cccco.edu/cccco/bog/>

California Commission on Teacher Credentialing

<http://www.ctc.ca.gov>

California Department of Education

<http://www.cde.ca.gov>

California School Information Services

<http://www.cde.ca.gov/demographics/csis/csis.html>

California State Board of Education

<http://www.cde.ca.gov/board/>

California State Governor Gray Davis

<http://www.governor.ca.gov>

California State Superintendent of Public Instruction

<http://www.cde.ca.gov/executive/>

California State Teachers' Retirement System

<http://www.strs.ca.gov/>

California State University Trustees

<http://www.calstate.edu/BOT/>

California Student Aid Commission

<http://www.csac.ca.gov/default.asp>

California Teachers Association

<http://www.cta.org>

The Center for Education Reform

<http://edreform.com>

The Center for the Future of Teaching and Learning
<http://www.cftl.org/>

Consortium for Policy Research in Education
<http://www.wcer.wisc.edu/cpre/>

EdVoice
<http://www.edvoice.com/>

Elk Grove Unified School District
<http://www.egusd.k12.ca.us/>

Extra Credit Teacher Home Purchase Program
<http://www.treasurer.ca.gov/csfa/extracredit/>

Fiscal Crisis and Management Assistance Team
<http://www.fcmat.org/>

Massachusetts Department of Education
<http://www.doe.mass.edu/>

Milken Family Foundation
<http://www.mff.org/>

Milwaukee Teacher Education Center
<http://www.milwaukee.k12.wi.us/mtec/>

National Center for Education Statistics
<http://www.nces.ed.gov/>

National Center for Public Policy and Higher Education
<http://www.highereducation.org/>

National Science Teachers Organization
<http://www.nsta.org/>

Office of Public School Construction
<http://www.opsc.dgs.ca.gov/>

Office of the Secretary for Education
<http://www.ose.ca.gov/>

Policy Analysis for California Education
<http://www.gse.berkeley.edu/research/PACE/pace.html>

Santa Monica-Malibu School District
<http://www.smmusd.org/>

State Allocation Board
<http://www.opsc.dgs.ca.gov/StateAllocationBoard/main.asp>

The Thomas B. Fordham Foundation
<http://www.edexcellence.net/>

University of California Regents
<http://www.ucop.edu/regents/welcome.html>

Vaughn Next Century Learning Center
www.vaughn.k12.ca.us

Notes

1. Commission on Teacher Credentialing. *Teachers Meeting Standards for Professional Certification in California: Second Annual Report*, 2001, page 1.
2. Linda Bond, Commission on Teacher Credentialing. Testimony to the Little Hoover Commission, November 16, 2000.
3. Kappa Delta Pi Record. *The Milwaukee Public Schools: How a Great City Prepares Its Teachers*, Fall 1999.
4. Massachusetts Department of Education, press release, July 5, 2000. *Massachusetts Highlighted at National Conference on Teacher Quality Initiatives*.
5. Massachusetts Department of Education. *Massachusetts Educator Certification Tests Annual Report*, Highlights of the Cumulative Results 1998-1999 Program Year.
6. David W. Gordon, Superintendent, Elk Grove Unified School District. Testimony to the Little Hoover Commission, February 21, 2001.
7. Senate Budget Committee Analysis, March 7th 2001. Proposed budget 2001-02.
8. NAEP State Profile: CA 1990-98 Math, Reading, Science & Writing Scores.
www.nces.ed.gov/nationreportcard/states
9. National Center for Public Policy and Higher Education. *Measuring Up 2000*, State College Preparation Comparison. www.highereducation.org
10. National Education Goals Panel data, 1997 high school completion, 1996 reading and math ranking, as reported in *Massachusetts: the State of Learning*, August 30, 2000.
11. Darling-Hammond, Linda, Jeannette LaFors and Jon Snyder. *Educating Teachers for California's Future*. *Teacher Education Quarterly*, Winter 2001, page 10.
12. California Teachers Association. *Low-Performing Schools = High Priority Schools*, February 19, 2001.
13. Shields, Patrick M., Camille E. Esch, Daniel C. Humphrey, Viki M. Young, Margaret Gaston, and Harvey Hunt. *The Status of the Teaching Profession: Research Findings and Policy Recommendations. A Report to the Teaching and California's Future Task Force*. Santa Cruz, CA: The Center for the Future of Teaching and Learning, 1999, page 47.
14. Commission on Teacher Credentialing. *Teachers Meeting Standards for Professional Certification in California: Second Annual Report*, 2001.
15. Angus, David L. and Jeffrey Mirel. *Professionalism and the Public Good: A Brief History of Teacher Certification*, page 16. A publication of the Thomas B. Fordham Foundation.
16. Angus, David L. and Jeffrey Mirel. *Professionalism and the Public Good: A Brief History of Teacher Certification*. A publication of the Thomas B. Fordham Foundation.
17. Commission on Teacher Credentialing, *Annual Report 2000*.
18. Sacramento Bee. *Few clear lowered bar on high school exit test*. June 8, 2001.
19. Commission on Teacher Credentialing. *Teachers Meeting Standards for Professional Certification in California: Second Annual Report*, 2001.
20. Ibid.
21. Ibid.
22. Ibid.

23. Mark Fetler, Commission on Teacher Credentialing. *Where Have All the Teachers Gone?* January 1997, page 6.
24. Commission on Teacher Credentialing, *Annual Report 2000*, page 19.
25. Department of Finance. *California State Budget Highlights*. July 26, 2001, page 1.
26. San Juan Unified School District, Survey of Administrators, November 2000.
27. Commission on Teacher Credentialing. *Teachers Meeting Standards for Professional Certification in California: Second Annual Report*, 2001, page 1.
28. Commission on Teacher Credentialing, *Annual Report 2000* and Shields, Patrick M., Camille E. Esch, Daniel C. Humphrey, Lori M. Riehl, Juliet D. Tiffany-Morales, and Viki M. Young. *The Status of the Teaching Profession: 2000: An Update to the Teaching and California's Future Task Force*. Santa Cruz, CA: The Center for the Future of Teaching and Learning. Executive summary, page 5.
29. Shields, Patrick M., Camille E. Esch, Daniel C. Humphrey, Viki M. Young, Margaret Gaston, and Harvey Hunt. *The Status of the Teaching Profession: Research Findings and Policy Recommendations. A Report to the Teaching and California's Future Task Force*. Santa Cruz, CA: The Center for the Future of Teaching and Learning, 1999, page 25.
30. Nancy Ichinaga, retired principal, Bennett-Kew School. Testimony to the Little Hoover Commission, February 21, 2001.
31. David W. Gordon, Superintendent, Elk Grove Unified School District. Testimony to the Little Hoover Commission, February 21, 2001.
32. Kappa Delta Pi Record. *The Milwaukee Public Schools: How a Great City Prepares Its Teachers*. Fall 1999.
33. Department of Education press release, July 5, 2000. *Massachusetts Highlighted at National Conference on Teacher Quality Initiatives*.
34. Massachusetts Department of Education. *Massachusetts Educator Certification Tests Annual Report*, Highlights of the Cumulative Results 1998-1999 Program Year.
35. Massachusetts Department of Education. <http://www.doe.mass.edu>.
36. Commission on Teacher Credentialing. *Annual Report 2000*.
37. Nancy Ichinaga, retired principal, Bennett-Kew School. Testimony to the Little Hoover Commission, February 21, 2001.
38. AB 1266, Chapter 937, Statutes 1997.
39. SB 2042, Chapter 548, Statutes 1998.
40. AB 877, Chapter 703, Statutes 2000.
41. Public Policy Institute of California, *Education and Wages: The Payoff in California, Research Brief* and Julian R. Betts, *The Changing Role of Education in the California Labor Market*, page ix.
42. Hind & Garcia, California Teachers Association meeting, June 28, 2001.
43. National Center for Educational Statistics. *Salaries of Teachers. The Condition of Education*, 1999. <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=1999022>.
44. Ibid.
45. American Federation of Teachers, press summary. *Annual State-by-State Teacher Salary Survey*. <http://www.aft.org/press>
46. Ibid.

47. Rueben, Kim S. and Jane Leber Herr. *Teachers Salaries in California*. Public Policy Institute of California, 2000: San Francisco, CA.
48. Ibid.
49. Senate Committee on Education. SB 811 bill analysis. James Wilson, consultant, page 1. April 4, 2001.
50. Senate Budget Analysis. AB 1117, Chapter 53, Statutes 1999. Leonore Ehling. June 15, 1999.
51. Senate Bill Analysis. SB 1643. Leonore Ehling. June 2000.
52. SB 811, (O'Connell). Introduced February 2001.
53. Commission on Teacher Credentialing. *Teachers Meeting Standards for Professional Certification in California: Second Annual Report*. 2001, page 1.
54. Shields, Patrick M., Camille E. Esch, Daniel C. Humphrey, Lori M. Riehl, Juliet D. Tiffany-Morales & Viki M. Young. *The Status of the Teaching Profession: Research Findings and Policy Recommendations, An Update to the Teaching and California's Future Task Force, Summary Report*. The Center for the Future of Teaching and Learning. 2000, page 5.
55. Shields, Patrick M., Camille E. Esch, Daniel C. Humphrey, Viki M. Young, Margaret Gaston, & Harvey Hunt. *The Status of the Teaching Profession: Research Findings and Policy Recommendations, A Report to the Teaching and California's Future Task Force*. The Center for the Future of Teaching and Learning. 1999, page 24.
56. Shields, Patrick M., Camille E. Esch, Daniel C. Humphrey, Viki M. Young, Margaret Gaston, & Harvey Hunt. *The Status of the Teaching Profession: Research Findings and Policy Recommendations, A Report to the Teaching and California's Future Task Force*. The Center for the Future of Teaching and Learning. 1999. And, Shields, Patrick M., Camille E. Esch, Daniel C. Humphrey, Lori M. Riehl, Juliet D. Tiffany-Morales & Viki M. Young. *The Status of the Teaching Profession: Research Findings and Policy Recommendations, An Update to the Teaching and California's Future Task Force, Summary Report*. The Center for the Future of Teaching and Learning. 2000.
57. Policy Analysis for California Education. *Teacher Quality*. Crucial Issues in California Education 2000, page 106.
58. Guarino, Cassandra, Associate Economist, RAND. Presentation to the Little Hoover Commission, Teacher Workforce Advisory Committee, February 22, 2001.
59. Interview, Bill Lucia, Chief of Staff, Senator Charles Poochigian.
60. Guarino, Cassandra, Associate Economist, RAND. Presentation to the Little Hoover Commission, Teacher Workforce Advisory Committee, February 22, 2001.
61. Milken Family Foundation. *Teaching as the Opportunity: The Teacher Advancement Program*.
62. Yvonne Chan, principal, Vaughn Next Century Learning Center. Testimony to the Little Hoover Commission, February 21, 2001.
63. California Budget Project. Budget Brief, March 2001. <http://www.cbp.org>.
64. U.S. Department of Education, National Center for Educational Statistics, Teacher Follow-up survey, 1990-91.
65. National Center for Educational Statistics. *Findings from the Condition of Education 1996, Teachers' Working Conditions*. November 1996.

66. National Center for Educational Statistics. *Effects of Workplace Conditions, Background Characteristics, and Teacher Compensation*. August 1997.
67. Ibid.
68. The National Science Teachers Association. Teacher survey, April 7, 2000.
69. California Department of Education, School Facilities Planning Division. *School Facilities Fingertip Facts*. January 2001.
70. National Center for Educational Statistics. *The Condition of Education 2001*, page 72.
71. Mark Fetler, Commission on Teacher Credentialing. *Where Have All the Teachers Gone?* January 1997.
72. California Department of Education, School Facilities Planning Division. *School Facilities Fingertip Facts*. January 2001.
73. Ibid.
74. Fiscal Crisis & Management Assistance Team (FCMAT). *Predictor of School Agencies Needing Intervention*. <http://www.fcmat.org>.
75. California Department of Education, School Facilities Planning Division. *School Facilities Fingertip Facts*. January 2001.
76. Policy Analysis for California Education. *School Finance in California: Does History Provide a Sufficient Policy Standard?* Crucial Issues in California Education 2000, page 48.
77. Ibid, page 49.
78. State Allocation Board. *1999-00 Annual Report*, page 21.
79. Shields, Patrick M., Camille E. Esch, Daniel C. Humphrey, Viki M. Young, Margaret Gaston, & Harvey Hunt. *The Status of the Teaching Profession: Research Findings and Policy Recommendations, A Report to the Teaching and California's Future Task Force*. The Center for the Future of Teaching and Learning. 1999, page 49.
80. Assembly Housing Committee Analysis. AB 2070. April 26, 2000.
81. Norm S. Jezzeny, Department of Housing and Urban Development, Headquarter's spokesperson. E-mail, July 16, 2001.
82. Policy Analysis for California Education. *Teacher Quality*. Crucial Issues in California Education 2000, page 103.
83. Mark Fetler, Commission on Teacher Credentialing. *Where Have All the Teachers Gone?* January 1997.
84. Calculated based on counts of teachers for 1992-2001 from Commission on Teacher Credentialing Mark Fetler and CDE CBEDS data. Data from 1996-1998 were excluded from growth computation because of the abnormal impact on growth caused by class size reduction. If these years are included in the average rate, the growth rate increases from 1.9% to 3.4%.
85. Policy Analysis for California Education. *Crucial Issues in California Education 2000*, page 102
86. Darling-Hammond, Linda, Jeannette Lafors & Jon Snyder. *Educating Teachers for California's Future*.
87. Ibid.

88. Shields, Patrick M., Camille E. Esch, Daniel C. Humphrey, Lori M. Riehl, Juliet D. Tiffany-Morales, and Viki M. Young. *The Status of the Teaching Profession: 2000: An Update to the Teaching and California's Future Task Force*. Santa Cruz, CA: The Center for the Future of Teaching and Learning. Page 9.
89. Meeting with Isabelle Garcia, Legislative Advocate, California Teachers Association, June 28, 2001.
90. Interview with Thomas Henry, executive director, FCMAT, July 16, 2001.
91. *A Journey From The Margins Toward the Center*, Report of the High-Performing /High-Poverty (HP2) symposium, January 17, 2001.
92. Department of Finance. *California State Budget Highlights*. July 26, 2001, page 1.
93. Mark Fetler, Commission on Teacher Credentialing. *Where Have All the Teachers Gone?* January 1997.
94. Legislative testimony by SRI to the Joint Master Plan Committee, 2001.
95. Linda Bond, Commission on Teacher Credentialing. Testimony to the Little Hoover Commission, November 16, 2000.
96. William Vassey, administrator, California Department of Education. Little Hoover Commission's Teacher Workforce Advisory Committee Meeting, December 2000.
97. *Avoiding A Demographic Disaster*. Government Technology Magazine. May 2001.
98. Policy Analysis for California Education. *Crucial Issues in California Education 2000*, page 86.

